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### GThe Drug Recognition Expert School?

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U.S. DEPARTMENT OF TRANSPORTATION
Transportation Safety Institute
National Highway Traffic Safety Administration

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## THE DRE SCHOOL - SCHEDULE

| WEDNESDAY   | THURSDAY  | FRIDAY   |
|---|---|--|
| 0800-0850 SESSION I: Introduction &<br>Overview                         | 0800.0850 SESSION V. Continued                                    | 0800-0850 SESSION IX: Central Nervous<br>System Depressants  |
| 0850-0900 BREAK   | 0850-0900 BREAK   | 0850-0900 BREAK  |
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| 1010-1030 Pre-Test  | 1015-1110 SESSION VI: Continued                                   | 1010-1100 SESSION X: 'Central Nervous<br>System Stimulants   |
| 1030-1120 SESSION II: Drugs In Society &<br>In Motor Vehicle Operation  | 1110-1120 BREAK   | 1100-1110 BREAK  |
| 1120-1130 BREAK   | 1120-1200 SESSION VII. Examination of<br>Vital Signs              | 1110-1200 SESSION X: Continued   |
| 1130-1230 SESSION III: Development &<br>Effectiveness of the Program    | 1200-1300 LUNCH   | 1200-1300 LUNCH  |
| 1230-1330 LUNCH   | 1300-1400 SESSION VII: Continued                                  | 1300-1400 SESSION XI: Eye Examinations   |
| 1330-1440 SESSION IV: Overview of Drug<br>Recognition Expert Procedures | 1400-1410 BREAK   | 1400-1415 BREAK  |
| 1440-1450 BREAK   | 1410-1430 SESSION VII: Continued                                  | 1415-1700 SESSION XII: Alcohol Workshop  |
| 1450-1550 SESSION IV: Continued   | 1430-1515 SESSION VIII: Demonstrations of the Evaluation Sequence |  |
| 1550-1600 BREAK   | 1515-1530 BREAK   | And the state of t |
| 1600-1630 SESSION IV: Continued   | 1530-1605 SESSION VIII: Continued                                 |  |
| 1630-1730 SESSION V: Eye Examinations                                   | 1605-1635 QUIZ NUMBER ONE   |  |
|   |   |  |

# THE DRE SCHOOL - SCHEDULE

| MONDAY  | TUESDAY  | WEDNESDAY   | THURSDAY   |
|---|--|---|--|
| 0800-0830 SESSION XIII: Physician's<br>Desk Reference | 0800-0820 QUIZ NUMBER TWO                                    | 0800-0915 SESSION XXIV: Drug<br>Combinations                | 0800-1000 FINAL EXAM   |
| 0830-0915 SESSION XIV: Hallucinogens                  | 0820-0850 SESSION XVII: Continued                            | 0915-0930 SESSION XXIV: Continued                           | 1000-1015 BREAK  |
| 0915-0930 BREAK                                       | 0850-0900 BREAK  | 1005-1050 SESSION XXV: Practice<br>Test Interpretation      | 1015-1200 SESSION XXIX.<br>Classifying a Suspect-Role Play   |
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| 1045-1130 SESSION XV: Practice<br>Test Interpretation | 1020-1030 BREAK  | 1200-1300 LUNCH   | 1600-1630 SESSION XXX:<br>Transition to Certification<br>Training  |
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| 1410-1420 BREAK                                       | 1300-1400 LUNCH  | 1530-1545 BREAK   |  |
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| 1530-1630 SESSION XVII: Continued                     | 1540-1640 SESSION XXII:<br>Overview of Signs and Symptoms    | 1700-1800 BREAK   |  |
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|   |  |   |  |

### SESSION I

INTRODUCTION AND OVERVIEW

### SESSION I INTRODUCTION AND OVERVIEW

Upon successfully completing this session, the participants will be able to:

- o State the goals and objectives of the course.
- o Outline the major course content.
- o Outline the schedule of major course activities.
- o Outline the contents and arrangements of the student manual.

During this session, the participant will demonstrate his or her current knowledge of basic concepts and terminology relevant to the Drug Evaluation and Classification Process.

NOTE: Throughout this Manual, the term "DRE" is used to designate an individual who is specially trained to conduct examinations of suspected drug-impaired drivers. In some participating agencies, the term stands for "drug recognition expert"; in others, it means "drug recognition examiners"; and in others "drug recognition evaluator". In addition, some agencies use the terms "DRT" (for drug recognition technician) or "DRS" (drug recognition specialists). All of these are acceptable and synonymous. But for this training program, the standard term is DRE.

### A. Introduction to The Second Stage of Training: The DRE School

The <u>Drug Evaluation and Classification</u> training program focuses on a set of examination procedures. These examinations include:

- o a breath test to determine blood alcohol concentration (BAC);
- o preliminary assessments of the subject's speech, breath, appearance, demeanor, behavior, etc;
- o examinations of the subject's eyes (for nystagmus, tracking ability, ability to converge, pupil size and pupil reaction to light);
- o psychophysical evaluations of the subject, based on divided attention tests;
- o examinations of the subject's vital signs (e.g., blood pressure, pulse rate and temperature);
- o inspections of the subject's arms, neck, nasal area, oral cavity, etc. for signs of drug ingestion.

Based on these examinations, and on other articulable evidence that may emerge during contact with the subject, a trained drug recognition expert (DRE) can reach reasonably accurate conclusions concerning the category or categories of drugs, or medical conditions, causing the impairment observed in the subject. Based on these informed conclusions, the DRE can request the collection and analysis of an appropriate chemical sample (blood or urine) to obtain corroborative, scientific evidence of the subject's drug use.

The DRE School provides detailed explanations of the examination procedures; careful demonstrations of these procedures, both "live" and via video tape; and, ample opportunities for the students to practice administering the examinations. By the completion of this course of instruction, students should be fully proficient in checking vital signs, conducting careful evaluations of eyes, administering divided attention tests and, in general, carrying out the procedural steps of the DRE's job.

However, there is one essential learning experience that this classroom training cannot provide. It cannot afford students an opportunity to practice examining subjects who are under the influence of drugs other than alcohol. For this reason, this classroom training only constitutes Phase II in the process of developing DRE skills. Phase III of the training (which commences upon the successful completion of this course) involves hands-on practice in an actual enforcement context, i.e., examining persons who are under arrest on suspicion of drug impairment.

Although this DRE School will not conclude with the student's immediate certification as a DRE, successful completion of this classroom training is nevertheless highly important. No one can advance to Certification Training until they demonstrate a mastery of basic knowledge of drug categories and their effects on the human mind and body, and of the basic skills in administering and interpreting the examinations involved in the Drug Evaluation and Classification process. All students must pass the knowledge exam with a score of 80% or greater.

Mastering the necessary knowledge and skills is not difficult, if students apply themselves diligently to study and practice. There is no reason why a student who possesses solid skills in detecting and investigating persons under the influence of alcohol cannot achieve proficiency as a DRE.

### B. Goals and Objectives of the Training

The <u>ultimate goal</u> of the Drug Evaluation and Classification Program, and of this course of instruction, is to "help prevent crashes and avoid deaths and injuries by improving enforcement of drug-impaired driving violations".

No one knows precisely how many people operate motor vehicles while under the influence of drugs, or how many crashes, deaths and injuries these people cause. But even the most conservative estimates suggest that America's drug-impaired drivers kill thousands of people each year, and seriously injure tens of thousands of others. In one study by the University of Tennessee (1988), 40% of crash-involved drivers treated at the University's Trauma Center had drugs other than alcohol in their urine. A similar study in Maryland (1986) showed that 32% of crash-injured drivers had evidence of marijuana in their blood. As law enforcement agencies improve their abilities to detect and convict these violators, fewer crashes should occur.

It should be noted that traffic crash reduction is not the only benefit that should result from an effective Drug Evaluation and Classification program. Improved investigative skills should increase society's effectiveness in combating the drug threat in general, and result in significant economic and human savings.

The goals of this classroom training, from the viewpoint of the law enforcement agencies participating in it, are three-fold:

1. To help police officers acquire the knowledge and skills needed to distinguish individuals under the influence of <u>alcohol only</u> from individuals who are under the influence of <u>other drugs</u>, or of combinations of alcohol and other drugs, or who are suffering from an injury or illness.

- 2. To enable police officers to identify the broad category or categories of drugs inducing the observable signs of impairment manifested by an individual.
- 3. To qualify police officers to progress to Certification Training.

The <u>objectives of this course</u>, from the viewpoint of the individual students who enroll in it, are as follows:

- o to be able to describe the involvement of drugs in impaired driving incidents.
- o to be able to name the seven broad categories of drugs, and recognize their effects on human beings.
- o to be able to describe, and administer properly, the psychophysical and physiologic examinations included in the Drug Evaluation and Classification process.
- o to be able to document the results of Drug Recognition Expert examinations.
- o to interpret the results of these examinations accurately.
- o to be able to prepare a narrative Drug Influence Report based on these examinations.
- o to be able to testify properly in typical drug evaluation cases.
- o to develop and maintain up-to-date, relevant resumes to document their qualifications as DREs.

Throughout this classroom training, and especially at its conclusion, students will be tested to assess their ability to do these things.

### C. Overview of Content And Schedule

During this classroom training some the major content topics will be:

- o the incidence of drugs in society and in vehicle operation,
- o the development and effectiveness of the DRE Program,
- o the DRE procedures,

- o eye examinations,
- o physiology and drugs,
- o vital signs examination,
- o Physicians Desk Reference,
- o interviewing suspects,
- o resume, case preparation and testimony,
- o interpreting and documenting the results of the examination.

Since hands-on practice is the principal learning activity, time will be spent on conducting the eye examinations, psychophysical tests, interpreting the examination results, administering vital signs examinations, practicing the DEC procedures and simulating the drug-impaired examinations.

### D. Overview of Student Manual

The student manual is be used as a reference and is a summary of material presented. It is <u>required</u> that you to attend every session of the DRE School in order to proceed to the certification training phase.

### DRUG EVALUATION AND CLASSIFICATION PROGRAM

### GLOSSARY OF TERMS

### ADDICTION

Habitual, psychological, and physiological dependence on a substance beyond one's voluntary control.

### ADDITIVE EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an additive effect if they both affect the indicator in the same way. For example, cocaine elevates pulse rate and PCP also elevates pulse rate. The combination of cocaine and PCP produces an additive effect on pulse rate.

### AFFERENT NERVES

See: "Sensory Nerves."

### ALKALOID

A chemical that is found in, and can be physically extracted from, some substance. For example, morphine is a natural alkaloid of opium. It does not require a chemical reaction to produce morphine from opium.

### ANALGESIC

A drug that relieves or allays pain.

### ANALOG (of a drug)

An analog of a drug is a chemical that is very similar to the drug, both in terms of molecular structure and in terms of psychoactive effects. For example, the drug Ketamine is an analog of PCP.

### ANESTHETIC

A drug that produces a general or local insensibility to pain and other sensation.

### ANTAGONISTIC EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an antagonistic effect if they affect the indicator in opposite ways. For example, heroin constricts pupils while cocaine dilates pupils. The combination of heroin and cocaine produces an antagonistic effect on pupil size. Depending on how much of each drug was taken, and on when they were taken, the suspect's pupils could be constricted, or dilated, or within the normal range of size.

### ARRHYTHMIA

An abnormal heart rhythm.

### ARTERY

The strong, elastic blood vessels that carry blood from the heart to the body tissues.

### **ATAXIA**

A blocked ability to coordinate movements. A staggering walk and poor balance may be caused by damage to the brain or spinal cord. This can be the result of trauma, birth defect, infection, tumor, or drug use.

### AUTONOMIC NERVE

A motor nerve that carries messages to the muscles and organs that we do not consciously control. There are two kinds of autonomic nerves, the sympathetic nerves and parasympathetic nerves.

### **AXON**

The part of a neuron (nerve cell) that sends out a neurotransmitter.

### BAC

(Blood Alcohol Concentration) - The percentage of alcohol in a person's blood.

### **BrAC**

(Breath Alcohol Concentration) - The percentage of alcohol in a person's blood as measured by a breath testing device.

### BLOOD PRESSURE

The force exerted by blood on the walls of the arteries. Blood pressure changes continuously, as the heart cycles between contraction and expansion.

### BRADYCARDIA

Abnormally slow heart rate; pulse rate below the normal range.

### BRADYPNEA

Abnormally slow rate of breathing.

### BRUXISM

Grinding the teeth. This behavior is often seen in persons who are under the influence of cocaine or other CNS stimulants.

### **CANNABIS**

- 1. One of the seven drug categories. Cannabis includes marijuana, hashish, hash oil, and marinol.
- 2. Several species of plants from which marijuana and related products are made (e.g., Cannabis Sativa and Cannabis Indicia).

### CARBOXY THC

A metabolite of THC (tetrahydrocannabinol).

### **CHEYNE**

Stokes Respiration - Abnormal pattern of breathing. Marked by breathlessness and deep, fast breathing.

### CNS (Central Nervous System)

A system within the body consisting of the brain, the brain stem, and the spinal cord.

### CNS DEPRESSANTS

One of the seven drug categories. CNS depressants include alcohol, barbiturates, anti-anxiety tranquilizers, and numerous other drugs.

### CNS STIMULANTS

One of the seven drug categories. CNS Stimulants include cocaine, the amphetamines, ritalin, preludin, and numerous other drugs.

### CONJUNCTIVITIS

An inflammation of the mucous membrane that lines the inner surface of the eyelids caused by infection, allergy, or outside factors. May be bacterial or viral. Persons suffering from conjunctivitis may show symptoms in one eye only. This condition is commonly referred to as "pink eye", a condition that could be mistaken for the bloodshot eyes produced by alcohol or Cannabis.

### CONVERGENCE

The "crossing" of the eyes that occurs when a person is able to focus on a stimulus as it is pushed slowly toward the bridge of his or her nose. (See, also, "Lack of Convergence".)

### CRACK

A hard chunk form of cocaine that produces a very intense, but relatively short duration "high". (Rock is a different process.)

### CYCLIC BEHAVIOR

A manifestation of impairment due to certain drugs, in which the suspect alternates between periods (or cycles) of intense agitation and relative calm. Cyclic behavior, for example, sometimes will be observed in persons under the influence of PCP.

### DELIRIUM

A brief state characterized by incoherent excitement, confused speech, restlessness, and possible hallucinations.

### DENDRITE

The part of a neuron (nerve cell) that receives a neurotransmitter.

### DIACETYL MORPHINE

The chemical name for Heroin.

### DIASTOLIC

The lowest value of blood pressure. The blood pressure reaches its diastolic value when the heart is fully expanded, or relaxed (Diastole).

### **DIPLOPIA**

Double vision.

### DISSOCIATIVE ANESTHETIC

A drug that inhibits pain by cutting off (or "disassociating") the brain's perception of the pain. PCP is usually described as a dissociative anesthetic.

### DIVIDED ATTENTION

Concentrating on more than one thing at a time. The four psychophysical tests used by DREs require the suspect to divide attention.

### DRUG

Any substance, which when taken into the human body, can impair the ability of the person to operate a vehicle safely.

### DYSARTHIA

Slurred speech. Difficult, poorly articulated speech.

### DYSPNEA et. al.

Shortness of breath.

### DYSMETRIA

An abnormal condition that prevents the affected person from properly estimating distances linked to muscular movements.

### **DYSPHORIA**

A disorder of mood. Feelings of depression and anguish.

### EFFERENT NERVES

See: "Motor Nerves".

### ENDOCRINE SYSTEM

The network of glands that do not have ducts and other structures. They secrete hormones into the blood stream to affect a number of functions in the body.

### EXPERT WITNESS

A person skilled in some art, trade, science or profession, having knowledge of matters not within knowledge of persons of average education, learning and experience, may assist a jury in arriving at a verdict by expressing an opinion on a state of facts shown by the evidence and based upon his or her special knowledge. (NOTE: Only the court can determine whether a witness is qualified to testify as an expert.)

### FLASHBACK

A vivid recollection of a portion of an hallucinogenic experience. Essentially, it is a very intense daydream. There are three types: (1) emotional -- feelings of panic, fear, etc.; (2) somatic -- altered body sensations, tremors, dizziness, etc.; and (3) perceptual -- distortions of vision, hearing, smell, etc.

### GARRULITY

Chatter, rambling or pointless speech. Talkative.

### **HALLUCINATION**

A sensory experience of something that does not exist outside the mind, e.g., seeing, hearing, smelling, or feeling something that isn't really there. Also, having a distorted sensory perception, so that things appear differently than they are.

### HALLUCINOGENS

One of the seven drug categories. Hallucinogens include LSD, MDMA, peyote, psilocybin, and numerous other drugs.

### HASH

Hash is the dried and compressed resin of the marijuana plant. Hash generally has a higher concentration of THC (tetrahydrocannabinol) than does the marijuana from which it is produced.

### HASH OIL

A refined oily extract of the marijuana plant containing a relatively high concentration of THC.

### HEROIN

A powerful and widely-abused narcotic analgesic that is chemically derived from morphine. The chemical, or generic name of heroin is "diacetyl morphine".

### **HIPPUS**

A rhythmic pulsating of the pupils of the eyes, as they dilate and constrict within fixed limits.

### HOMEOSTASIS

The dynamic balance, or steady state, involving levels of salts, water, sugars, and other materials in the body's fluids.

### HORIZONTAL GAZE NYSTAGMUS (HGN)

Involuntary jerking of the eyes occurring as the eyes gaze to the side.

### HORMONES

Chemicals produced by the body's endocrine system that are carried through the blood stream to the target organ. They exert great influence on the growth and development of the individual, and that aid in the regulation of numerous body processes.

### HYDROXY THC

A metabolite of THC (tetrahydrocannabinol).

### HYPERFLEXIA

Exaggerated or over extended motions.

### HYPERGLYCEMIA

Excess sugar in the blood.

### HYPERPNEA

A deep, rapid or labored breathing.

### HYPERPYREXIA

Extremely high blood temperature.

### HYPERREFLEXIA

A neurological condition marked by increased reflex reactions.

### HYPERTENSION

Abnormally high blood pressure. Do not confuse this with hypotension.

### **HYPOGLYCEMIA**

An abnormal decrease of blood sugar levels.

### **HYPOPNEA**

Shallow or slow breathing.

### HYPOTENSION

Abnormally low blood pressure. Do not confuse this with hypertension.

### HYPOTHERMIA

Decreased body temperature.

### ICE

A crystalline form of methamphetamine that produces a very intense and fairly long-lasting "high".

### **INHALANTS**

One of the seven drug categories. The inhalants include volatile solvents (such as glue and gasoline), aerosols (such as hair spray and insecticides) and anesthetic gases (such as nitrous oxide).

### INSUFFLATION

See "snorting".

### INTEGUMENTARY SYSTEM

The skin and accessory structures, hair and nails. Functions include protection, maintenance of body temperature, excretion of waste, and sensory perceptions.

### INTRAOCULAR

"Within the eyeball".

### KOROTKOFF SOUNDS

A series of distinct sounds produced by blood passing through an artery, as the external pressure on the artery drops from the systolic value to the diastolic value.

### LACK OF CONVERGENCE

The inability of a person's eyes to converge, or "cross" as the person attempts to focus on a stimulus as it is pushed slowly toward the bridge of his or her nose.

### **MARIJUANA**

Common term for the Cannabis Sativa plant. Usually refers to the dried leaves of the plant. This is the most common form of the cannabis category.

### MARINOL

A drug containing a synthetic form of THC (tetrahydrocannabinol). Marinol belongs to the cannabis category of drugs, but marinol is not produced from any species of cannabis plant.

### **METABOLISM**

The sum of all chemical processes that take place in the body as they relate to the movements of nutrients in the blood after digestion, resulting in growth, energy, release of wastes, and other body functions. The process by which the body, using oxygen, enzymes and other internal chemicals, breaks down ingested substances such as food and drugs so they may be consumed and eliminated. Metabolism takes place in two phases. The first step is the constructive phase (anabolism) where smaller molecules are converted to larger molecules. The second steps is the destructive phase (catabolism) where large molecules are broken down into smaller molecules.

### METABOLITE

A chemical product, formed by the reaction of a drug with oxygen and/or other substances in the body.

### MIOSIS

Abnormally constricted pupils.

### MOTOR NERVES

Nerves that carry messages away from the brain, to the body's muscles, tissues, and organs. Motor nerves are also known as efferent nerves.

### MUSCULAR HYPERTONICITY

Rigid muscle tone.

### **MYDRIASIS**

Abnormally dilated pupils.

### NARCOTIC ANALGESICS

One of the seven drug categories. Narcotic analgesics include opium, the natural alkaloids of opium (such as morphine, codeine, and thebaine), the derivatives of opium (such as heroin, dilaudid, metopon, percodan and hycodan), and the synthetic narcotics (such as demerol and numorphan).

### NERVE

A cord-like fiber that carries messages either to or from the brain. For drug evaluation and classification purposes, a nerve can be pictured as a series of "wire-like" segments, with small spaces or gaps between the segments.

### NEURON

A nerve cell. The basic functional unit of a nerve. It contains a nucleus within a cell body with one or more axons and dendrites.

### NEUROTRANSMITTER

Chemicals that pass from the axon of one nerve cell to the dendrite of the next cell, and that carry messages across the gap between the two nerve cells.

### NULL EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce a null effect if <u>neither</u> of them affects that indicator. For example, PCP does not affect pupil size, and alcohol does not affect pupil size. The combination of PCP and alcohol produces a null effect on pupil size.

### NYSTAGMUS

An involuntary jerking of the eyes.

### "ON THE NOD"

A state of deep relaxation, induced by impairment due to heroin or other narcotic analgesic. The suspect's eyelids droop, and chin rests on the chest. Suspect may appear to be asleep, but can be easily aroused and will respond to questions.

### OVERLAPPING EFFECT

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an overlapping effect if one of them affects the indicator but the other doesn't. For example, cocaine dilates pupils while alcohol doesn't affect pupil size. The combination of cocaine and alcohol produces an overlapping effect on pupil size: the combination will cause the pupils to dilate.

### PALLOR

An abnormal paleness or lack of color in the skin.

### **PARANOIA**

Mental disorder characterized delusions and the projection of personal conflicts, that are ascribed to the supposed hostility of others.

### **PARAPHERNALIA**

Drug paraphernalia are the various kinds of tools and other equipment used to store, transport or ingest a drug. Hypodermic needles, small pipes, bent spoons, etc., are examples of drug paraphernalia. The singular form of the word is "paraphernalium". For example, one hypodermic needle would be called a "drug paraphernalium".

### PARASYMPATHETIC NERVE

An autonomic nerve that commands the body to relax and to carry out tranquil activities. The brain uses parasympathetic nerves to send "at ease" commands to the muscles, tissues, and organs.

### PARASYMPATHOMIMETIC DRUGS

Drugs that mimic neurotransmitter associated with the parasympathetic nerves. These drugs artificially cause the transmission of messages that produce lower blood pressure, drowsiness, etc.

### PDR (Physician's Desk Reference)

A basic reference source for drug recognition technicians. The PDR provides detailed information on the physical appearance and psychoactive effects of all licitly-manufactured drugs.

### PHENCYCLIDINE

A contraction of <u>PHENYL CYCLOHEXYL PIPERIDINE</u>, or PCP. Phencyclidine is the name of one of the seven drug categories, and is also the name of the major drug in that category.

### PHENYL CYCLOHEXYL PIPERIDINE (PCP)

- 1. One of the seven drug categories, often called "phencyclidine".
- 2. A specific drug belonging to the phencyclidine category.

### PHYSIOLOGY

The study of living organisms and the changes that occur during activity.

### PILOERECTION

Literally, "hair standing up", or goose bumps. This condition of the skin is often observed in persons who are under the influence of LSD.

### POLYDRUG USE

Using two or more drugs at the same time.

### **PSYCHEDELIC**

A mental state characterized by a profound sense of intensified or altered sensory perception sometimes accompanied by hallucinations.

### PSYCHOPHYSICAL TESTS

Methods of investigating the mental (psycho-) and physical characteristics of a person suspected of alcohol or drug impairment. Most psychophysical tests employ the concept of divided attention to assess a suspect's impairment.

### **PSYCHOTOGENETIC**

Literally, "creating psychosis" or "giving birth to insanity". A drug is considered to be psychotogenetic if persons who are under the influence of the drug become insane, and remain so after the drug wears off.

### **PSYCHOTOMIMETIC**

Literally, "mimicking psychosis" or "impersonating insanity". A drug is considered to be psychotomimetic if persons who are under the influence of the drug look and act insane while they are under the influence.

### **PTOSIS**

Droopy eyelids.

### **PULSE**

The expansion and relaxation of the walls of an artery, caused by the surging flow of blood.

### PULSE RATE

The number of expansions of an artery per minute.

### REBOUND DILATION

A period of constriction followed by dilation with a change equal to or greater than 2 mm the final size determination being estimated at the end of a 15-second time period in which the light from the penlight is directed into the eye.

### RESTING NYSTAGMUS

Jerking of the eyes as they look straight ahead.

### RESUME

A written summary of a person's education, training, experience, noteworthy achievements and other relevant information about a particular topic.

### SCLERA

A dense white fibrous membrane that, with the cornea, forms the external covering of the eyeball (i.e., the white part of the eye).

### SENSORY NERVES

Nerves that carry messages to the brain, from the various parts of the body, including notably the sense organs(eyes, ears, etc.). Sensory nerves are also known as afferent nerves.

### SINSEMILLA

The unpollenated female cannabis plant, having a relatively high concentration of THC.

### SFST

Standardized Field Sobriety Testing. There are three SFSTs, namely Horizontal Gaze Nystagmus (HGN), Walk and Turn, and One Leg Stand. Based on a series of controlled laboratory studies, scientifically validated clues of alcohol impairment have been identified for each of these three tests. They are the <u>only</u> Standardized Field Sobriety Tests for which validated clues have been identified.

### SNORTING

One method of ingesting certain drugs. Snorting requires that the drug be in powdered form. The user rapidly draws the drug up into the nostril, usually via a paper or glass tube. Snorting is also known as insufflation.

### SPHYGMOMANOMETER

A medical device used to measure blood pressure. It consists of an arm or leg cuff with an air bag attached to a tube and a bulb for pumping air into the bag, and a gauge for showing the amount of air pressure being pressed against the artery.

### STETHOSCOPE

A medical instrument used, for drug evaluation and classification purposes, to listen to the sounds produced by blood passing through an artery.

### SYMPATHETIC NERVE

An autonomic nerve that commands the body to react in response to excitement, stress, fear, etc. The brain uses sympathetic nerves to send "wake up calls" and "fire alarms" to the muscles, tissues and organs.

### SYMPATHOMIMETIC DRUGS

Drugs that mimic the neurotransmitter associated with the sympathetic nerves. These drugs artificially cause the transmission of messages that produce elevated blood pressure, dilated pupils, etc.

### SYNAPSE (or Synaptic Gap)

The gap or space between two neurons (nerve cells).

### SYNESTHESIA

A sensory perception disorder, in which an input via one sense is perceived by the brain as an input via another sense. An example of this would be a person "hearing" a phone ring and "seeing" the sound as a flash of light. Synesthesia sometimes occurs with persons under the influence of hallucinogens.

### SYSTOLIC

The highest value of blood pressure. The blood pressure reaches its systolic value when the heart is fully contracted (systole), and blood is sent surging into the arteries.

### **TACHYCARDIA**

Abnormally rapid heart rate; pulse rate above the normal range.

### **TACHYPNEA**

Abnormally rapid rate of breathing.

### THC (Tetrahydrocannabinol)

The principal psychoactive ingredient in drugs belonging to the cannabis category.

### TOLERANCE

An adjustment of the drug user's body and brain to the repeated presence of the drug. As tolerance develops, the user will experience diminishing psychoactive effects from the same dose of the drug. As a result, the user typically will steadily increase the dose he or she takes, in an effort to achieve the same psychoactive effect.

### TRACKS

Scar tissue usually produced by repeated injection of drugs, via hypodermic needle, along a segment of a vein.

### VERTICAL GAZE NYSTAGMUS

An up-and-down jerking of the eyes which occurs when the eyes gaze upward at maximum elevation.

### VOIR DIRE

A french expression literally meaning "to see, to say". Loosely, this would be rendered in English as "To seek the truth", or "to call it as you see it". In a law or court context, one application of voir dire is to question a witness to assess his or her qualifications to be considered an expert in some matter pending before the court.

### VOLUNTARY NERVE

A motor nerve that carries messages to a muscle that we consciously control.

### WITHDRAWAL

This occurs in someone who is physically addicted to a drug when he or she is deprived of the drug. If the craving is sufficiently intense, the person may become extremely agitated, and even physically ill. Withdrawal from heroin is reported to be an especially unpleasant experience.

### SESSION II

DRUGS IN SOCIETY AND IN VEHICLE OPERATION

### SESSION II DRUGS IN SOCIETY AND IN VEHICLE OPERATION

Upon successfully completing this session, the participants will be able to:

- o Define the term "drug" in the context of this course.
- o Name the seven major categories of drugs that are relevant to the Drug Evaluation and Classification Process.
- o State in approximate, quantitative terms the incidence of drug use among various segments of the American public.
- o State in approximate, quantitative terms the incidence of drug involvement in motor vehicle crashes and other driving incidents.
- o Correctly answer the "topics for study" questions at the end of this Section.

### A. Definition And Categories of Drugs

The word "drug" means many things to many people. The word is used in a number of different ways, by different people, to convey some very different ideas.



For purposes of this training, a simple, enforcement-oriented definition is needed:

A drug is any substance, which when taken into the human body, can impair the ability of the person to operate a vehicle safely.

This definition is adapted from the California Vehicle Code, and reflects the traffic safety orientation of this training program.

It is worth noting that this simple, enforcement-oriented definition excludes many substances that physicians and others would consider "drugs". For example, nicotine (cigarettes) and acetyl salicylic acid (aspirin) would <u>not</u> be considered "drugs" for purposes of this training. Similarly, this definition <u>includes</u> as "drugs" many substances that physicians wouldn't ordinarily think of when they hear the word. Model airplane glue, for example, is a "drug" for purposes of this training.

Under this simple definition, there are seven broad categories of drugs.

### Central Nervous System Depressants

Examples

Alcohol

Barbiturates

Anti-Anxiety Tranquilizers

Muscle Relaxers

### Central Nervous System Stimulants

Examples

Cocaine -

Amphetamines

Methamphetamine

### Hallucinogens<sup>\*</sup>

Examples

LSD

Psilocybin

Peyote

**MDMA** 



### Phencyclidine (PCP)

This category consists of the drug, PCP, and its various analogs.

### Narcotic Analgesics

Examples

Heroin

Codeine

Demerol

### Inhalants

Examples

Glue

Gasoline

Aerosols



### Cannabis

This category includes the various forms and products of <u>Cannabis</u> plants (e.g., marijuana, hashish, etc.)



Each category produces a different set of effects on the human mind and body. Each category exhibits different signs of drug influence, signs which come to light in the Drug Evaluation and Classification examinations. Each category also includes drugs that are widely abused.

### B. Incidence And Characteristics of Drug Use in America

Estimates of the number of American drug users vary widely and are difficult to pinpoint with any accuracy. It is known that one drug, alcohol is at least occasionally used by at least a majority of adults in this country. Despite the fact that almost all of the alcohol consumed in this country is legally manufactured -- and taxed -- under fairly close governmental scrutiny, experts disagree as to how many people abuse alcohol, how much they consume, how frequently, etc. Knowledge of consumption patterns of other drugs is even less exact, since these drugs often are produced and sold illegally.

Nevertheless, virtually all experts agree that millions of Americans use drugs other than alcohol. The National Institute on Drug Abuse estimated that in 1996, more than 13 million Americans regularly used illicit drugs. The Substance Abuse and Mental Health Administration estimated, in a 1996 report, that someone in America tries Marijuana for the first time every 14 seconds and also reported first time Cocaine use occurred every 59 seconds. This same report estimated that 18 million Americans regularly use Marijuana. In an article published in February, 1989, the Washington Post indicated that several million Americans appear to use amphetamines; that same article reported an alarming increase in the use of

Methamphetamine, or "Crank" in recent months. Federally sponsored surveys during the late 1970's and early 1980's put the estimated number of Hallucinogen users at one million; however, due to the recent upsurge in popularity of LSD, especially among high school students, this figure has nearly doubled. The number of Narcotic addicts is estimated to be nearly 250,000.

In 1998, more than 75 million prescriptions were written for Valium and similar tranquilizers and sedatives.

One fact that is abundantly clear is that many drug users <u>don't</u> stick with only one substance, but instead routinely ingest more than one drug category at a time. This behavior is called "polydrug" use (the prefix "poly" derives from the Greek word for "many"). Some very commonly abused combinations of drugs include:

- o <u>Alcohol and virtually any other drug</u> (for example, out of 173 drivers arrested by LAPD on suspicion of being under the influence of drugs, 81 -- or 47% -- had consumed alcohol <u>and</u> some other drug).
- o <u>Marijuana and PCP</u> (A very common way of ingesting PCP is to sprinkle it on a marijuana cigarette and smoke it. The user then automatically ingests both PCP <u>and Cannabis.</u>)
- o <u>Cocaine and Heroin</u> (This combination has its own "street name": it is commonly called a "speedball".)
- o <u>Heroin and Amphetamine</u> (This combination sometimes is called a "poor man's speedball".)
- o <u>Heroin and PCP</u> (Sometimes called a "fireball".)
- o "Crack" Cocaine and PCP (Sometimes called "space base".)
- o "Crack" cocaine and marijuana (Sometimes called "primo".)
- o "Crack" and Methamphetamine (Sometimes called "croak".)

The practice of polydrug use is so common that a drug recognition technician should expect to encounter <u>many</u> suspects who are under the influence of more than one category of drugs. Indeed, at some times and places, <u>polydrug</u> use may be more common than <u>single</u> drug use.

Drug use remains particularly common among teenagers and young adults. In its 1996 survey, the National Institute on Drug Abuse (NIDA) found that 42% of high school seniors reported using illegal drugs during their senior year and 22% of high school seniors used Marijuana at least once a month. The <u>USA Today</u> reported (on September 17, 1987) that 70% of high school coaches believe that drug use among their athletes is a serious problem. In 1987, NIDA reported that about 30% of college seniors have tried cocaine.

### C. Incidence of Drug Impaired Driving

Accurate data on the frequency with which people drive while under the influence of drugs are very hard to come by. First of all, many impaired drivers are never detected. Secondly, since many drug users also drink alcohol, when they are stopped for impaired driving they may be arrested (and tabulated in statistics) as alcohol impaired drivers only. Thirdly, when they are involved in crashes, they may not be tested for drugs other than alcohol.

Nevertheless, some limited studies have been conducted that suggest that drug impaired driving is a problem of significant proportions.

- (1) A North Carolina study of 600 drivers killed in single-vehicle crashes during 1978-81 showed that 14% had drugs other than alcohol in them at the time of the crash. These drugs included marijuana; barbiturates and methaqualone (Central Nervous System Depressants); cocaine and amphetamines (Central Nervous System Stimulants); PCP; and, opiates (Narcotic Analgesics). It is especially noteworthy that most of the fatally injured, drug using drivers in this study also had consumed alcohol. In fact, 10% of all of these fatally injured drivers had blood alcohol concentrations of 0.10 or higher and also had drugs other than alcohol in them.
- (2) A study was conducted in California of young (15-34 years old) male drivers killed in crashes during 1982 and 1983. This study covered 440 such drivers. More than half were found to have some drug or drugs other than alcohol in them. The most prevalent drug other than alcohol was cannabis, which was found in 37% of these young dead drivers. Nearly one-third of these 440 dead drivers (30%) had alcohol and cannabis in them.
- (3) In what is probably the most comprehensive study of this kind conducted to date, the University of Tennessee Medical Center analyzed the urine samples of crash-injured drivers for a broad spectrum of drugs, and found that <u>forty percent</u> had evidence of drugs other than alcohol.

(4) A 1997 NIDA future study of drug use among high school seniors disclosed drug use trends as shown in the table below:

|                     | Used within the last:                                 |              |  |
|---------------------|---|--------------|--|
| Drugs               | 12 months*  | 30 days<br>% |  |
| Alcohol             | 71.5  | 48.6         |  |
| Marijuana ·         | 36.2  | 21.5         |  |
| Stimulants          | 11.1  | 5.5          |  |
| Tranquilizers       | 7.7   | 3.3          |  |
| Other opiates       | 7.0   | 3.1          |  |
| Sedatives           | 6.7   | 3.2          |  |
| Hallucinogens       | 6.6   | 2.3          |  |
| Cocaine             | 5.0   | 2.3          |  |
| Inhalants           | 4.5   | 1.5          |  |
| Steroids            | 2.5   | 1.4          |  |
| Heroin              | 1.0   | 0.5          |  |
| *Including the last | month.  | 4,           |  |
| Source: University  | of Michigan, Drug Use fi<br>esults on Adolescent Drug |              |  |

(5) Recent research completed in 2000 at the Department of Community and Preventative Medicine - University of Rochester, Rochester, NY examined blood samples from 880 drivers brought to the emergency room with injuries received in a motor vehicle crash. Of these samples, 33% were positive for at least one substance. The most commonly found substances were THC, Benzodiazepines, and Cocaine.

### Topics for Study

- 1. What does the term "drug" mean, as it is used in this course?
- 2. What are the seven categories of drugs? To which category does alcohol belong? To which category does cocaine belong?
- 3. What does "polydrug use" mean?
- 4. What is a "speedball"? What is "Space Base"?
- 5. What percentage of crash injured drivers had drugs in their urine, in the University of Tennessee study?
- 6. According to NIDA, what proportion of high school seniors smoke marijuana during their senior year?

### SESSION'III

DEVELOPMENT AND EFFECTIVENESS OF THE DRUG EVALUATION AND CLASSIFICATION PROCESS

### SESSION III DEVELOPMENT AND EFFECTIVENESS OF THE DRUG EVALUATION AND CLASSIFICATION PROCESS

Upon successfully completing this session, the participants will be able to:

- o State the origin and evolution of the drug evaluation and classification program.
- O Describe research and demonstration project results that validate the effectiveness of the program.
- o State the impact of legal precedents established by case law.
- O Correctly answer the "topics for study" questions at the end of this Section.

### A. Origin and Evolution of the Program

The Drug Evaluation and Classification Program was developed by personnel of the Los Angeles Police Department. The initial impetus for the program stemmed from the frequent encounters, by experienced traffic enforcement officers, with drivers who were clearly impaired but whose blood alcohol concentrations were very low or zero. The logical suspicion was that these drivers were under the influence of drugs other than alcohol. But obtaining convincing evidence to back up that suspicion was not easy. Occasionally, officers succeeded in having physicians examine their low-BAC suspects, sometimes resulting in a medical diagnosis of drug influence. But medical personnel typically receive little or no training in the recognition of specific signs of drug impairment, particularly at street level doses; therefore, they often were unable or reluctant to offer a judgment about a suspect's condition. As a result, many drivers who almost certainly were under the influence were not prosecuted or convicted.

Two sergeants were instrumental in organizing a program to help police officers develop the skills needed to perform their own assessments of drug-impaired drivers. One was <u>Dick Studdard</u>, a traffic officer, the other was <u>Len Leeds</u>, a narcotics officer. They undertook independent research by consulting with physicians, enrolling in relevant courses, studying text books and technical articles, etc. And, they secured management level support within LAPD to continue and to accelerate the research and development effort. With the assistance of many others, Sergeants Studdard and Leeds ultimately succeeded in developing a drug recognition program based on a three-step process:

### STEP ONE

Verify that the suspect is impaired, and verify that the suspect's blood alcohol concentration is not consistent with the degree of impairment that is evident.

### STEP TWO

Determine whether the impairment is drug related or medically related (i.e., injury or illness).

### STEP THREE

Use proven diagnostic procedures to determine the category (or combination of categories) of drugs that is the likely cause of the impairment.

In 1979, the Drug Recognition program received the official recognition of the LAPD.

Persons unfamiliar with drugs sometimes wonder why it is necessary to use an elaborate set of diagnostic procedures to point toward the likely category of drugs. At first glance, it might seem that the easily observable inconsistency between the suspect's impairment and his or her BAC would be sufficient. In other words, if the suspect is obviously impaired, and if the alcohol level in the suspect's blood is not enough to account for that impairment, why not simply obtain a blood sample and analyze it for drugs? For several reasons, this simplistic approach would not work.

- The request for a blood or urine sample should be based on (at least) the strongest articulable evidence of drugs that is available. The mere inconsistency between BAC and observable impairment might not be deemed (by courts, or by motor vehicle licensing agencies) as sufficient to justify the subsequent chemical test. For example, it could be argued that the suspect is ill or injured, or is simply very susceptible to the effects of even low doses of alcohol. It is preferable if the officer who initiates the chemical test for drugs can articulate a credible basis for believing that those drugs are present.
- The suspect may simply refuse to submit to the test. Although that action might put the suspect's driver's license in jeopardy of suspension or revocation, it also will deny the prosecution access to the scientific evidence of drug involvement. Conviction or acquittal in such a case may hinge on the officer's ability to submit detailed and convincing testimony concerning the signs pointing toward a specific category or categories of drugs.
- o Chemical tests of blood or urine usually disclose only whether or not a particular drug was recently used. The chemical test cannot be relied upon to determine whether the drug was <u>psychoactive</u> in the suspect at that time (i.e., whether the suspect was "under the influence" of the drug, within the meaning of the law). The DRE is needed to establish the fact that the drug was indeed causing <u>impairment</u>.
- Analysis of blood (or urine) samples for "drugs" can be very expensive, and may require a large volume. Practical constraints require that the officer requesting the chemical analysis be able to point the laboratory technician toward the type of drugs most likely to be found in the sample.
- o Several new and innovative methods for drug toxicological analysis are currently being researched. These include, but are not limited to, saliva and hair sampling. As these methods are accepted into the scientific community, they will be evaluated for incorporation into the DECP program.

There is always the possibility that a person suspected of drug impairment is actually suffering from an illness or injury requiring medical attention. If the suspect's sample is simply drawn for subsequent analysis, and they are not examined by someone qualified to recognize the presence -- or absence -- of symptoms of drug impairment, the medical problem may not be discovered until it is too late. Drug recognition experts take justifiable pride in the numerous instances where they have secured prompt medical care for persons initially suspected of drug abuse.

# B. Evidence of Program Effectiveness

Proof of the effectiveness of the drug evaluation and classification program began to be accumulated from the very outset of the program: LAPD personnel demonstrated that they could conduct examinations that led directly to the conviction of drug impaired drivers and other drug law violators. And they demonstrated that they could train others to conduct these examinations successfully.

Scientific evidence that the examinations provide accurate indicators of drug categories began to be accumulated in the early 1980's. The National Highway Traffic Safety Administration sponsored a controlled, laboratory evaluation of the LAPD drug recognition procedures. The evaluation was conducted by researchers from Johns Hopkins University, assisted by senior drug recognition experts from LAPD. The researchers recruited volunteers who agreed to consume a variety of drugs, and other substances, under the researchers' supervision. During each experimental session, each volunteer swallowed a "pill" and smoked a "cigarette". Subsequently, each volunteer was examined, independently, by four LAPD DREs.

The "pills" given to volunteers contained one of the following:

- o a placebo (i.e., no drug at all)
- o secobarbital (a Central Nervous System Depressant)
- o valium (i.e., diazepam -- another Central Nervous System Depressant)
- o desoxyn (i.e., methamphetamine sulfate -- a Central Nervous System Stimulant)

The "cigarette" contained marijuana <u>or</u> a placebo (i.e., no drug) marijuana that either actually contained THC or from which the THC had been removed (i.e., a placebo).

No <u>combinations</u> of drug categories were administered to any volunteer on any session. That is, if a volunteer received a marijuana cigarette, then that volunteer received a placebo pill. If the volunteer received a "loaded" pill (i.e., with a drug), then his or her cigarette was a placebo. <u>Some</u> volunteers, on some sessions, received no drug at all: i.e., both the "pill" and the "cigarette" were placebos.

Two different dose levels of marijuana, diazepam and methamphetamine sulfate were used. That is, some of the marijuana cigarettes were "weak", some were "strong". Similarly, some of the diazepam and methamphetamine sulfate pills were "weak", some "strong". All of the secobarbital pills were "strong". Note, however, that even the "strong" dose levels were a good deal weaker than the drugs typically abused by impaired drivers encountered by police officers.

A most important condition of this laboratory experiment is that <u>neither the</u> <u>volunteers nor the LAPD officers knew what drugs the volunteers had received</u>. Also, the DRE's were not allowed to "compare notes" concerning their examinations of the suspects. Each DRE conducted his or her examinations in a separate room, and each had to reach an independent judgment as to what category (if any) of drug was present.

The DREs' performance in the laboratory experiment was excellent. They correctly classified 95% of the placebo only subjects as "not impaired". Conversely, they correctly classified 98.7% of the subjects who received "strong" drug doses as "impaired". And, they correctly identified the <u>category</u> of drugs for 91.7% of those "strong" dose subjects.

The DREs were less successful in identifying the volunteers who received "weak" drug doses. For example, they classified as "impaired" only about one-third of the subjects who received "weak" marijuana cigarettes, and only about one-sixth of those who received "weak" methamphetamine sulfate pills. However, it is unlikely that those "weak" dose subjects would have been stopped by officers, if they actually had been driving.

NHTSA followed up the laboratory experiment by sponsoring a Field Validation Study, in Los Angeles. Arrangements were made to have an independent laboratory analyze blood samples drawn from persons actually arrested on suspicion of drug impaired driving. Any suspect who was involved in a crash was excluded from the study, since injuries could have confounded the drug examination. Similarly, any suspect who refused to submit to the blood test was excluded, since there would have been no way to substantiate or refute the DRE's conclusions.

Ultimately, 173 suspected drug impaired drivers were included in the Field Validation Study. Each was examined by an LAPD DRE, and subsequently provided a blood sample for analysis by the independent laboratory.

A number of important facts emerged from this field validation study:

- 1. When a trained drug recognition expert concludes that a suspect is under the influence of drugs, chances are very good indeed that the suspect actually has drugs in his or her body. Only one of the 173 suspects was found to have no alcohol or other drug. Only ten others were found to have alcohol only. Thus, 93.6% of the suspects were confirmed to have drugs other than alcohol in their bodies. Of the 173 subjects, 125 or 72% had ingested 2 or more drugs, other than alcohol.
- 2. Polydrug use is very common. Only 21% of the suspects had consumed one drug other than alcohol. The study found 47% had two drugs in their system other than alcohol. And 25% had three or more drugs other than alcohol in their system. Among the more common combinations were the following:
  - o Alcohol and PCP (23 suspects)
  - o Alcohol and Cannabis (19 subjects)
  - o Alcohol and PCP and Cannabis (18 subjects)
  - o Cannabis and PCP (20 subjects)
- 3. The independent blood analyses confirmed the DREs' opinions in most cases. Overall, for more than nine out of ten suspects (92.5%), the blood test confirmed the presence of at least one drug category "predicted" by the DREs.
- 4. Confirmation rates varied among the categories, as follows:

| Category                       | Percent Confirmed by | $\underline{\mathrm{Blood}}$ |
|--------------------------------|----------------------|------------------------------|
| PCP                            | 92%                  | ÷                            |
| Narcotic Analgesics            | 85%                  | •                            |
| Cannabis                       | 78%                  |                              |
| Depressants (other than alcoho | l) 50%               |                              |
| CNS Stimulants                 | 33%                  |                              |

5. The relatively low confirmation rates for Depressants and CNS Stimulants may have been due to limitations in the laboratory rather than because of misjudgments by the DREs. For example, the laboratory analyzed the blood only for the subcategories of Depressants known as the Barbiturates and the Benzodiazepines; there are many Depressant drugs that do not belong to those two groupings. In addition, the blood samples were not frozen prior to their shipment to the laboratory. Unfortunately, cocaine continues to metabolize in unfrozen blood samples. Therefore, it is possible that, in some samples obtained from Stimulant abusers, the cocaine simply disappeared before the samples were analyzed.

Since the initiation of the Drug Evaluation and Classification Program in Phoenix late in 1987, the Arizona Department of Public Safety's Central Regional Crime Laboratory has maintained records of the toxicologic analyses corresponding to DREs' opinions. Based on 526 cases reported by December, 1990 an overall laboratory confirmation rate of 86.5% had been achieved.

Numerous other states have conducted comparisons of laboratory analysis and DRE opinions, with the correlation rates generally exceeding 80%.

The overall conclusion of both the Laboratory and Field Studies is that the Drug Evaluation and Classification Program is a worthwhile tool for enforcement of drug-impaired driving. The tool is <u>not</u> 100% accurate, especially in a climate of polydrug use. However, it will furnish reliable evidence of the link between a particular suspect and a particular category of drugs in much more than a majority of cases.

#### C. Case Law Review

The Drug Recognition Expert Program is receiving increasingly favorable attention in court. Courts in various states have ruled favorably on the DEC program. Some judges have held that the DRE examination procedures meet the Frye standard for admissibility of "new" scientific evidence, while others have ruled that the Frye standard need not apply. The Frye standard is set by the U.S. Supreme Court to govern the admissibility of "new" scientific evidence. In effect, these courts took judicial notice of the Drug Recognition Expert Program, so that it is no longer necessary -- within the jurisdictions of those specific courts -- to introduce expert scientific testimony to secure the admissibility of the results of a drug influence examination.

Some of the courts which have rendered decisions are (1) the Municipal Court of the City of Tucson, County of Pima, State of Arizona (acting in "State of Arizona vs. Dayton Johnson and Samuel Rodriguez, et al.", numbers 90056865 and 90035883). The court ruled that the Frye standard was met. This decision was appealed to the Arizona Supreme court which ruled that the Frye standard did not apply to the DEC Program. (2) the Municipal Court of Minneapolis, State of Minnesota (acting in State of Minnesota, City of Minneapolis vs. Larry Michael Klawitter, 518 N.W. 2nd 577), ruled that outside of nystagmus, the DEC Program is not subject to the Frye standard. (3) the County Court of Boulder, State of Colorado (State of Colorado vs. Daniel Hernandez, 92M181) also ruled that the proceedures utilized by DRE's are not new or novel and that the Frye standard did not apply. These decisions illustrate the acceptance the DEC Program is gaining in many courts across the nation.

One key element of the drug influence examination -- namely, Horizontal Gaze Nystagmus -- has been found to meet the Frye standard by several State Supreme Courts. The first case that led to State-wide judicial notice of HGN is commonly known as "State vs. Blake" (718 P.2d 171; Arizona, 1986). See also "State vs. Superior Court of County of Cochise, 149 Ariz 269, 718 P.2d 171, 60 ALR 4th, 1103). In this landmark ruling, the Arizona Supreme Court also set standards governing the training of officers who would be qualified to testify about HGN. The court also explicitly ruled that HGN cannot be used to establish BAC quantitatively in the absence of a chemical test.

#### To Summarize:

The prevailing trend in court is to accept HGN as evidence of impairment; provided the proper scientific foundation is laid. However, courts consistently reject any attempt to derive a quantitative estimate of BACfrom nystagmus. Keep in mind that neither nystagmus nor any other elements of the drug recognition examination are intended to substitute for chemical testing. It is true that there is an approximate, statistical relationship between BACand angle of onset, but this approximate relationship is not sufficiently reliable to permit BAC"prediction" in any individual case.

# Topics for Study

- 1. State four reasons why it is important <u>not</u> to rely simply on a chemical test to establish a suspect's drug impairment.
- 2. What categories of drugs were included in the Johns Hopkins Laboratory Evaluation?
- 3. In what percentage of cases in the Los Angeles field validation study did blood tests confirm the DREs' opinion that <u>PCP</u> was present?
- 4. What percentage of suspects were found to be polydrug users in the Field Validation Study?
- 5. What was the landmark State Supreme Court case that upheld the use of HGN as evidence of impairment?
- 6. What do we call the standards for admissibility of scientific evidence, set by the U.S. Supreme Court?
- 7. In which two States were Drug Evaluation and Classification procedures first found to meet those standards of scientific evidence?

# "Frye" Decisions Regarding Admissibility of Drug Recognition Expert Testimony

"Frye" refers to a United States Federal Court opinion dealing with the admissibility of scientific evidence. The court established that new or novel scientific evidence, or the novel application of scientific principles, must be shown to have met with general acceptance in the relevant scientific community before it can be admitted.

#### 1990

State of Arizona v. Dayton Johnson and Samuel Rodriguez, et al. Defendants

Nos 90056865 & 90035883 (Unpublished Opinion).

The Municipal Court of the City of Tucson, County of Pima, State of Arizona

"Virtually all the witnesses agreed that the scientific procedures utilized by trained drug recognition experts are reliable and are generally accepted in the scientific community. The methodology in place, used by trained law enforcement personnel in the field, has been shown to produce reasonably reliable and uniform results that will contribute materially to the ascertainment of the truth."

On May 7, 1992, the Arizona Supreme Court heard oral arguments in a special proceeding regarding this case. The Justices uniformly rejected the application of "Frye" to the DRE procedures. The Chief Justice observed that the component examination procedures had been established for fifty years.

The prosecutors in this case were Tom Rankin (Tucson) and Cliff Vanell (Phoenix). Expert witnesses for the prosecution included: Sgt. Richard Studdard, LAPD, Marcelline Burns, Ph.D., Sgt. Thomas Page, LAPD, Zenon Zuk, M.D., and Eugene Adler, toxicologist.

#### 1991

The people of the State of New York v. Mary Quinn, Defendant, Docket No. 3130122, District Court, Suffolk County, October 24, 1991, 580 N.Y.S. 2d 818, Misc.2d 139 (N.Y.D.C. 1991).

"The Court found the People's evidence to be persuasive. The protocol is relatively simple. Jurors should have no trouble understanding the testimony of the DRE witness."

"Further, nothing contained in the protocol is a new invention. It is rather a compilation of tried and true procedures utilized by medical science and the law enforcement community in similar contexts for many years."

"The Court believes that the protocol's underlying principles are not so hypertechnical nor the skills required so specialized as to require professional medical training."

"The Court holds that the people have successfully established that both the HGN test and the DRE protocol meet the standards enunciated by "Frye" and "Middleton."

The prosecutors in this case were Joe Lombardo and Richard Frankel (Suffolk County). Expert witnesses for the prosecution included: Richard Studdard, retired LAPD Sergeant, Marcelline Burns, Ph.D., Sergeant Thomas Page, LAPD, Technical Sgt. Douglas Paquette, New York State Police, Zenon Zuk, M.D., David Peed, O.D., and Edward Briglia, Ph.D.

#### 1992

County Court, Boulder, Colorado Case No. 92M181 (Unpublished Opinion) People of the State of Colorado v. Daniel Hernandez

"The DRE methods are accepted within the scientific community because they have found to be reliable."

"The Court finds that the expert does have sufficient specialized knowledge to assist the jurors in better deciding whether the defendant drove his car when under the influence of a specific drug. The DRE testimony can be used at trial provided a sufficient foundation is laid." Overall, this court ruled that the procedures used by DRE's are not new or novel scientific techniques that must meet the "Frye" standard.

The prosecutor in this case was David Archeluta (Boulder County). Expert witnesses for the prosecution include: Sergeant Thomas Page, LAPD, Zenon Zuk, M.D., Marcelline Burns, Ph.D., Rick Abbott, M.D., and Laurel Farrell (chemist).

#### 1993

State of Minnesota in Supreme Court, C6-93-2092, filed June 30, 1994. (Unpublished Opinion)

State of Minnesota, City of Minneapolis vs. Larry Michael Klawitter, 518 N.W.2d 577 (1994)

"Given proper foundation and subject to other qualifications, opinion testimony by experienced police officers trained in use of so-called drug recognition protocol is generally admissible in evidence in a trial of a defendant for driving while under the influence of a controlled substance."

The Court determined that the gaze nystagmus test satisfies the requirements of "Frye".

"We agree with the trial court that the officer should be allowed to give an opinion based on the officer's training and experience and his or her observations following the 12-step drug recognition protocol, as long as (a) there is sufficient foundation for the specific opinion expressed, (b) the state does not attempt to exaggerate the officer's credentials by referring to the officer as a "Drug Recognition Expert" or to unfairly suggest that the officer's opinion is entitled to greater weight than it deserves, and..." "We add only that it should be obvious that the mere fact that such opinion testimony by itself will be sufficient to support a guilty verdict."

The court also determined that, outside of nystagmus, the components of a DRE examination are not scientifically new and are not subject to the "Frye" test.

The trial court stated, "...there is nothing scientifically new, novel, or controversial about any component of the DRE protocol itself. The symptomatology matrix used by DRE's to reach their conclusions is not new and is generally accepted in the medical community as an accurate compilation of signs and symptoms or impairment by the various drug categories."

The prosecutor in this case was Karen Herland (City of Minneapolis). Expert witnesses for the prosecution included: Sergeant Thomas Page, LAPD, Dr. Marcelline Burns (psychologist), Dr. David Peed (optometrist), Dr. Zenon Zuk (medical doctor), Eugene Adler (criminalist), Dr. S.J. Jejurikar (Minnesota Bureau of Criminal Apprehension), and Robert Meyer (toxicologist).

1994
11<sup>th</sup> Judicial Circuit in and for Dade County, Florida
Case No. 256998,9-I (Unpublished Opinion)
State of Florida v. Frederick Williams
Judge Maxine Cohen Lando
Original filed January 19, 1995

"Given proper foundation and subject to other qualifications, opinion testimony by an experienced police officer trained in the use of the drug recognition protocol is generally admissible in evidence in a trial of a defendant charged with driving under the influence of a controlled or chemical substance. Furthermore, Horizontal Gaze Nystagmus (HGN) test results are generally admissible to establish (1) that the defendant was impaired; and/or (2) that the defendant was over the legal limit; and/or (3) the defendant's specific breath or blood alcohol level at the time he performed the test."

This court found that the "Frye" standard is inapplicable to the DRE Protocol because neither the protocol nor any of its subsets (including HGN, VGN, and Lack of Convergence) are "scientific".

Further, these tests are neither new nor novel. The Court also state that "Frye" is inapplicable to HGN, VGN, and LOC because none of them are new or novel. "None of these tests or the theories and procedures they encompass, are new, novel, or emerging scientific techniques. The medical and psychological professions have acknowledged the tests' underlying theories and procedures for decades."

#### The Court concluded:

"Drug recognition training is not designed to qualify police officers as scientists, but to train them as observers. The training is intended to refine and enhance the skill of acute observation...and to focus that power...in a particular situation."

This court followed the Klawitter (Minnesota) decision, that it requires the state to "lay a proper predicate before referring to a DRE as anything other than a DRE or Drug Recognition Evaluator or Examiner."

"The real issue is not the admissibility of the evidence, but the weight it should receive. That is a matter for the jury to decide."

The prosecutor in this case was Steve Talpins (Dade County). Expert witnesses for the prosecution in this case included: Marcelline Burns, Ph.D., Zenon Zuk, M.D., Robert Dobie, M.D., Sergeant Thomas Page, LAPD, and others.

### American Prosecutors Research Institute National Traffic Law Center

# HORIZONTAL GAZE NYSTAGMUS STATE CASE LAW SUMMARY

#### INTRODUCTION

The following state case law summary contains the seminal cases for each state, the District of Columbia and the Federal courts on the admissibility of HGN. Three main issues regarding the admissibility of the HGN test are set out under each state: evidentiary admissibility, police officer testimony, and purpose and limits of the HGN test results. The case or cases that address each issue are then briefly summarized and cited.

#### Alabama

#### I. Evidentiary Admissibility

HGN is a scientific test that must satisfy the *Frye* standard of admissibility. The Supreme Court of Alabama found that the State had not presented "sufficient evidence regarding the HGN test's reliability or its acceptance by the scientific community to determine if the Court of Criminal Appeals correctly determined that the test meets the Frye standards." *Malone v. City of Silverhill*, 575 So.2d 106 (Ala. 1990).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

The Court did not address this issue.

#### III. Purpose and Limits of HGN

The Court did not address this issue.

#### Alaska

#### I. Evidentiary Admissibility

HGN is a scientific test. It is generally accepted within the relevant scientific community. Ballard v. Alaska, 955 P.2d 931, 939 (Alaska Ct. App. 1998).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

A police officer may testify to the results of HGN testing as long as the government establishes a foundation that the officer has been adequately trained in the test. *Ballard*, 955 P.2d at 941.

#### III. Purpose and Limits of HGN

HGN testing is "a reliable indicator of a person's alcohol consumption and, to that extent, HGN results are relevant." The court cautioned that the HGN test could not be used to correlate the results with any particular blood-alcohol level, range of blood-alcohol levels, or level of impairment.

Ballard, 955 P.2d at 940.

#### Arizona

#### I. Evidentiary Admissibility

HGN is a scientific test that needs to satisfy the *Frye* standard of admissibility. State has shown that HGN satisfies the *Frye* standard. *State v. Superior Court* (*Blake*), 718 P.2d 171, 181 (Ariz. 1986) (seminal case on the admissibility of HGN).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

"The proper foundation for [admitting HGN test results] . . . includes a description of the officer's training, education, and experience in administering the test and showing that proper procedures were followed."

Arizona ex. rel. Hamilton v. City Court of Mesa, 799 P.2d 855, 860 (Ariz. 1990). See also Arizona ex. Rel. McDougall v. Ricke, 778 P.2d 1358, 1361 (Ariz. Ct. App. 1989).

#### III. Purpose and Limits of HGN

HGN test results are admissible to establish probable cause to arrest in a criminal hearing. State v. Superior Court (Blake), 718 P.2d at 182.

"Where a chemical analysis has been conducted, the parties may introduce HGN test results in the form of estimates of BAC over .10% to challenge or corroborate that chemical analysis." *Ricke*, 778 P.2d at 1361.

When no chemical analysis is conducted, the use of HGN test results "is to be limited to showing a symptom or clue of impairment." *Hamilton*, 799 P.2d at 858.

#### Arkansas

#### I. Evidentiary Admissibility

Novel scientific evidence must meet the *Prater* (relevancy) standard for admissibility. Because law enforcement has used HGN for over thirty-five years, a *Prater* inquiry is not necessary as the test is not "novel" scientific evidence. *Whitson v. Arkansas*, 863 S.W.2d 794, 798 (Ark. 1993).

The Court did not address this issue.

# III. Purpose and Limits of HGN

HGN may be admitted as evidence of impairment, but is not admissible to prove a specific BAC. Whitson, 863 S.W.2d at 798.

#### California

### I. Evidentiary Admissibility

HGN is a scientific test and the Kelly/Frye "general acceptance" standard must be applied. California v. Leahy, 882 P.2d 321 (Cal. 1994). California v. Joehnk, 35 Cal. App. 4th 1488, 1493, 42 Cal.

Rptr. 2d 6, 8 (Cal. Ct. App. 1995).

"...[A] consensus drawn from a typical cross-section of the relevant, qualified scientific community accepts the HGN testing procedures...."

Joehnk, 35 Cal. App. 4th at 1507, 42 Cal. Rptr. 2d at 17.

# II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer testimony is insufficient to establish "general acceptance in the relevant scientific community." *Leahy*, 882 P2d. at 609. Also see *People v. Williams*, 3 Cal. App. 4th 1326 (Cal. Ct. App. 1992).

Police officer can give opinion, based on HGN and other test results, that defendant was intoxicated. Furthermore, police officer must testify as to the administration and result of the test. *Joehnk*, 35 Cal. App. 4<sup>th</sup> at 1508, 42 Cal. Rptr. 2d at 18.

# III. Purpose and Limits of HGN

HGN may be used, along with other scientific tests, as some evidence that defendant was impaired.

Joehnk, 35 Cal. App. 4th at 1508, 42 Cal. Rptr. 2d at 17.

HGN test results may not be used to quantify the BAC level of the defendant. *California v. Loomis*, 156 Cal. App. 3d Supp. 1, 5-6, 203 Cal. Rptr. 767, 769-70 (1984).

#### Connecticut

# I. Evidentiary Admissibility

Proper foundation must be established in accordance with *Daubert* prior to the introduction of HGN test results. *State v. Russo*, 773 A. 2d 965 (Conn. App. Ct. 2001).

Also see, Connecticut v. Merritt, 647 A.2d 1021, 1028 (Conn. App. Ct. 1994). HGN must meet the Frye test of admissibility. In this case, the state presented no evidence to meet its burden under the Frye test.

HGN satisfies the *Porter* standards and is admissible. (In *State v. Porter*, 698 A.2d 739 (1997), the Connecticut Supreme Court held the *Daubert* approach should govern the admissibility of scientific evidence and expressed factors to be considered in assessing evidence.)

Connecticut v. Carlson, 720 A.2d 886 (Conn. Super. Ct. 1998).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Must lay a proper foundation with a showing that the officer administering the test had the necessary qualifications and followed proper procedures. *Connecticut v. Merritt*, 647 A.2d 1021, 1028 (Conn. App. Ct. 1994).

# III. Purpose and Limits of HGN

HGN test results can be used to establish probable cause to arrest in a criminal hearing. Connecticut v. Royce, 616 A.2d 284, 287 (Conn. App. Ct. 1992).

#### Delaware

# I. Evidentiary Admissibility

HGN evidence is scientific and must satisfy the Delaware Rules of Evidence standard. Delaware v. Ruthardt, 680 A.2d 349, 356 (Del. Super. Ct. 1996).

HGN evidence is acceptable scientific testimony under the Delaware Rules of Evidence. *Ruthardt*, 680 A.2d at 362.

# II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer may be qualified as an expert to testify about the underlying scientific principles that correlate HGN and alcohol. Delaware police receiving three-day (twenty-four hour) instruction on HGN test administration are not qualified to do this. *Ruthardt*, 680 A.2d at 361-62.

Police officer testimony about training and experience alone, without expert testimony, is not enough foundation to admit HGN test results.

Zimmerman v. Delaware, 693 A.2d 311, 314 (Del. 1997).

#### III. Purpose and Limits of HGN

HGN test results admissible to show probable cause in a criminal hearing. *Ruthardt*, 680 A.2d at 355.

HGN test results admissible to show probable cause in a civil hearing. Cantrell v. Division of Motor Vehicles, 1996 Del. Super. LEXIS 265 (Del. Super. Ct. Apr. 9, 1996).

HGN test results cannot be used to quantify the defendant's BAC. However, they can be used as substantive evidence that the defendant was "under the influence of intoxicating liquor." *Ruthardt*, 680 A.2d at 361-62.

#### District of Columbia

# I. Evidentiary Admissibility

The Court does not address this issue.

# II. Police Officer Testimony Needed to Admit HGN Test Result

The Court used the case law of other jurisdictions to come to the conclusion that the Officer in the case could testify as an expert on the administration and the results of the HGN test. Therefore, in this case, the evidence was properly admitted using the Officer as the expert. See Karamychev v. District of Columbia, 772 A. 2d 806 (D.C. App. 2001).

### III. Purpose and Limits of HGN

The Court has not yet addressed this issue.

#### Florida

#### I. Evidentiary Admissibility

The 3<sup>rd</sup> District Court found HGN to be a "quasi-scientific" test. Its application is dependent on a scientific proposition and requires a particular expertise outside the realm of common knowledge of the average person. It does not have to meet the *Frye* standard because HGN has been established and generally accepted in the relevant scientific community, and has been *Frye* tested in the legal community. The court took judicial notice that HGN is reliable based on supportive case law from other jurisdictions, numerous testifying witnesses and studies submitted. It is "no longer 'new or novel' and there is simply no need to reapply a *Frye* analysis." *Williams v. Florida*, 710 So. 2d 24 (Fla. Dist. Ct. App. 1998).

The 4th District Court found HGN to be a scientific test. However, because it is not novel, the Frye standard is not applicable. However, "[e]ven if not involving a new scientific technique, evidence of scientific tests is admissible only after demonstration of the traditional predicates for scientific evidence including the test's general reliability, the qualifications of test administrators and technicians, and the meaning of the results." Without this predicate, "the danger of unfair prejudice, confusion of issues or misleading the jury from admitting HGN test results outweighs any probative value." The state did not establish the appropriate foundation for the admissibility of HGN test results.

Florida v. Meador, 674 So. 2d 826, 835 (Fla. Dist. Ct. App. 1996), review denied, 686 So. 2d 580 (Fla. 1996).

# II. Police Officer Testimony Needed to Admit HGN Test Result

"We take judicial notice that HGN test results are generally accepted as reliable and thus are admissible into evidence once a proper foundation has been laid that the test was correctly administered by a qualified DRE [Drug Recognition Expert]."

Williams, 710 So. 2d at 32.

Also see *Bown v. Florida*, 745 So. 2d 1108 (Fl. Dist. Ct. App. 1999) which expands *Williams*. Allows trooper to explain HGN, but district requires confirmatory blood, breath or urine test before admitting HGN into evidence.

No evidence presented as to the police officer's qualifications nor administration of the HGN test in this case.

Meador, 674 So. 2d at 835.

# III. Purpose and Limits of HGN

The HGN test results alone, in the absence of a chemical analysis of blood, breath, or urine, are inadmissible to trigger the presumption provided by the DUI statute, and may not be used to establish a BAC of .08 percent or more.

Williams, 710 So. 2d at 36.

#### Georgia

### I. Evidentiary Admissibility

The HGN test is admissible as a "scientifically reliable field sobriety evaluation" under the *Harper* "verifiable certainty" standard. *Manley v. Georgia*, 424 S.E.2d 818, 819-20 (Ga. Ct. App. 1992).

HGN testing is judicially noticed as a scientifically reliable test and therefore expert testimony is no longer required before the test results can be admitted. Hawkins v. Georgia, 476 S.E.2d 803, 808-09 (Ga. Ct. App. 1996).

Police officer, who received specialized training in DUI detection and worked with a DUI task force for two years, was permitted to testify that, in his opinion, defendant was under the influence.

Sieveking v. Georgia, 469 S.E.2d 235, 219-20 (Ga. Ct. App. 1996).

A Police officer who testifies to the results, administration, and procedure of HGN may be cross-examined about those areas even if the state only offers him as a POST-certified officer. This is because the analysis and expertise needed for HGN go far beyond those needed by a lay person who observes the walk and turn or one leg stance tests. *James v. State*, 2003 WL 1540235 (Ga. App.).

#### III. Purpose and Limits of HGN

HGN test can be admitted to show that the defendant "was under the influence of alcohol to the extent that it was less safe for him to drive." Sieveking, 469 S.E.2d at 219.

#### Hawaii

#### I. Evidentiary Admissibility

HGN is a scientific test. The HGN test is reliable under the Hawaii Rules of Evidence and admissible as "evidence that police had probable cause to believe that a defendant was DUI." Judicial notice of the "validity of the principles underlying HGN testing and the reliability of HGN test results" is appropriate. HGN test results can be admitted into evidence if the officer administering the test was duly qualified to conduct the test and the test was performed properly. Hawaii v. Ito, 978 P.2d 191 (Haw. Ct. App. 1999).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Before HGN test results can be admitted into evidence in a particular case, however, it must be shown that (1) the officer administering the test was duly qualified to conduct and grade the test; and (2) the test was performed properly in the instant case. *Hawaii v. Ito*, 978 P.2d 191 (Haw. Ct. App. 1999), *See also Hawaii v. Toyomura*, 904 P.2d 893, 911 (Haw. 1992) and *Hawaii v. Montalbo*, 828 P2d. 1274, 1281 (Haw. 1992).

### III. Purpose and Limits of HGN

HGN test can be admitted as "evidence that police had probable cause to believe that a defendant was DUI." Hawaii v. Ito, 978 P.2d 191 (Haw. Ct. App. 1999).

#### Idaho

## I. Evidentiary Admissibility

HGN test results admitted under the Idaho Rules of Evidence. Rule 702 is the correct test in determining the admissibility of HGN. State v. Gleason, 844 P.2d 691, 694 (Idaho 1992).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Officer may testify as to administration of HGN test, but not correlation of HGN and BAC. State v. Garrett, 811 P.2d 488, 493 (Idaho 1991).

## III. Purpose and Limits of HGN

"HGN test results may not be used at trial to establish the defendant's blood alcohol level . . . Although we note that in conjunction with other field sobriety tests, a positive HGN test result does supply probable cause for arrest, standing alone that result does not provide proof positive of DUI...."

Garrett, 811 P.2d at 493.

HGN may be "admitted for the same purpose as other field sobriety test evidence -- a physical act on the part of [defendant] observed by the officer contributing to the cumulative portrait of [defendant] intimating intoxication in the officer's opinion." Gleason, 844 P.2d at 695.

#### Illinois :

### I. Evidentiary Admissibility

HGN meets *Frye* standard of admissibility. *People v. Buening*, 592 N.E.2d 1222, 1227 (Ill. App. Ct. 1992).

Despite the ruling of the *Buening* appellate court, the Fourth District Court of Appeals declined to recognize HGN's general acceptance without a *Frye* hearing. The court criticized the *Buening* court for taking judicial notice of HGN's reliability based on the decisions of other jurisdictions. *People v. Kirk*, 681 N.E.2d 1073, 1077 (Ill. App. Ct. 1997).

The state supreme court held that the state was no longer required to show than an HGN test satisfied the Frye standard before introducing the results of the test into evidence. Absent proof by the defense that the HGN test was unsound, the State only had to show that the officer who gave the test was trained in the procedure and that the test was properly administered. The People of the State of Illinois v. Linda Basler, 740 N.E.2d 1 (Ill. 2000), 2000 Ill. LEXIS 1698 (Ill. 2000). (Plurality Opinion) According to Fourth Circuit, a Frye hearing must be held for HGN to be admitted. People v. Herring, 762 N.E.2d 1186.

"A proper foundation should consist of describing the officer's education and experience in administering the test and showing that the procedure was properly administered." *Buening*, 592 N.E.2d at 1227.

#### III. Purpose and Limits of HGN

HGN test results may be used to establish probable cause in a criminal hearing. *People v. Furness*, 526 N.E.2d 947, 949 (Ill. App. Ct. 1988).

HGN test results admissible to show probable cause in a civil hearing. *People v. Hood*, 638 N.E.2d 264, 274 (Ill. App. Ct. 1994).

HGN test results may be used "to prove that the defendant is under the influence of alcohol." *Buening*, 592 N.E.2d at 1228.

#### Indiana

### I. Evidentiary Admissibility

Results of properly administered HGN test are admissible to show impairment which may be caused by alcohol and, when accompanied by other evidence, will be sufficient to establish probable cause to believe a person may be intoxicated. *Cooper v. Indiana*, 751 N.E.2d 900, 903 (Ind. Ct. App. Feb. 2002)

# II. Police Officer Testimony Needed to Admit HGN Test Result

The proper foundation for admitting HGN evidence should consist of describing the officer's education and experience in administering the test and showing that the procedure was properly administered. *Cooper*, 751 N.E.2d at 903.

The question of whether a trained officer might express an opinion that defendant was intoxicated based upon the results of field sobriety tests was not before the court, and thus, the court expressed no opinion concerning the admissibility of such testimony. *Cooper*, 751 N.E. 2d at 902, n. 1.

### III. Purpose and Limits of HGN

HGN test results, when accompanied by other evidence, will be sufficient to establish probable cause that the person may be intoxicated. *Cooper*, 751 N.E.2d at 903.

#### **Towa**

## I. Evidentiary Admissibility

HGN admissible as a field test under the Iowa Rules of Evidence. "[T]estimony by a properly trained police officer with respect to the administration and results of the horizontal gaze nystagmus test are admissible without need for further scientific evidence." State v. Murphy, 451 N.W.2d 154, 158 (Iowa 1990).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer may testify about HGN test results under Rule 702 if the officer is properly trained to administer the test and objectively records the results.

Murphy, 451 N.W.2d at 158.

# III. Purpose and Limits of HGN

HGN test results may be used as an indicator of intoxication. Murphy, 451 N.W.2d at 158.

#### Kansas

# I. Evidentiary Admissibility

HGN must meet *Frye* standard of admissibility and a *Frye* hearing is required at the trial level. There was no *Frye* hearing conducted and the appellate court refused to make a determination based on the record it had. *State v. Witte*, 836 P.2d 1110, 1121 (Kan. 1992).

HGN test has not achieved general acceptance within the relevant scientific community and its exclusion was appropriate. State v. Chastain, 960 P.2d 756 (Kan. 1998).

# II. Police Officer Testimony Needed to Admit HGN Test Result

The Court did not address this issue.

# III. Purpose and Limits of HGN

The Court did not address this issue.

#### Kentucky

# I. Evidentiary Admissibility

HGN test results admitted due to defendant's failure to object. Commonwealth v. Rhodes, 949 S.W.2d 621, 623 (Ky. Ct. App. 1996).

The Court did not address this issue.

# III. Purpose and Limits of HGN

The Court did not address this issue.

#### Louisiana

# I. Evidentiary Admissibility

HGN meets Frye standard of admissibility and with proper foundation my be admitted as evidence of intoxication.

State v. Breitung, 623 So. 2d 23, 25-6 (La. Ct. App. 1993).

State v. Regan, 601 So. 2d 5, 8 (La. Ct. App. 1992).

State v. Armstrong, 561 So. 2d 883, 887 (La. Ct. App. 1990).

The standard of admissibility for scientific evidence is currently the Louisiana Rules of Evidence. State v. Foret, 628 So. 2d 1116 (La. 1993).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer may testify as to training in HGN procedure, certification in the administration of HGN test and that the HGN test was properly administered. *Armstrong*, 561 So. 2d at 887.

# III. Purpose and Limits of HGN

The HGN test may be used by the officer "to determine whether or not he [needs] to 'go any further' and proceed with other field tests." Breitung, 623 So. 2d at 25.

HGN test results may be admitted as evidence of intoxication. *Armstrong*, 561 So. 2d at 887.

### Maine :

# I. Evidentiary Admissibility

Because the HGN test relies on greater scientific principles than other field sobriety tests, the reliability of the test must first be established. Either *Daubert* or *Frye* standard must be met. State v. Taylor, 694 A.2d 907, 912 (Me. 1997).

The Maine Supreme Court took judicial notice of the reliability of the HGN test to detect impaired drivers.

Taylor, 694 A.2d at 910.

# II. Police Officer Testimony Needed to Admit HGN Test Result

"A proper foundation shall consist of evidence that the officer or administrator of the HGN test is trained in the procedure and the [HGN] test was properly administered." Taylor, 694 A.2d at 912.

# III. Purpose and Limits of HGN

HGN test results may only be used as "evidence of probable cause to arrest without a warrant or as circumstantial evidence of intoxication. The HGN test may not be used by an officer to quantify a particular blood alcohol level in an individual case." *Taylor*, 694 A.2d at 912.

### Maryland

# I. Evidentiary Admissibility

HGN is scientific and must satisfy the *FryelReed* standard of admissibility. The Court of Appeals took judicial notice of HGN's reliability and its acceptance in the relevant scientific communities. *Schultz v. State*, 664 A.2d 60, 74 (Md. Ct. Spec. App. 1995).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer must be properly trained or certified to administer the HGN test. [NOTE: In Schultz, the police officer failed to articulate the training he received in HGN testing and the evidence was excluded.]

Schultz, 664 A.2d at 77.

# III. Purpose and Limits of HGN

HGN testing may not be used to establish a specific blood alcohol level. Wilson v. State, 723 A.2d 494 (Md. Ct. Spec. App. 1999).

# Massachusetts

# I. Evidentiary Admissibility

HGN is scientific and is admissible on a showing of either general acceptance in the scientific community or reliability of the scientific theory. See Commonwealth v. Lanigan, 641 N.E.2d 1342 (Mass. 1994). HGN test results are inadmissible until the Commonwealth introduces expert testimony to establish that the HGN test satisfies one of these two standards. Commonwealth v. Sands, 675 N.E.2d 370, 373 (Mass. 1997).

"[T]here must be a determination as to the qualification of the individual administering the HGN test and the appropriate procedure to be followed." In this case there was no testimony as to these facts, thus denying the defendant the opportunity to challenge the officer's qualifications and administration of the test. Sands, 675 N.E.2d at 373.

#### III. Purpose and Limits of HGN

The Court did not address this issue.

#### Michigan

#### I. Evidentiary Admissibility

Court found that HGN test is scientific evidence and is admissible under the *Frye* standard of admissibility.

State v. Berger, 551 N.W.2d 421, 424 (Mich. Ct. App. 1996).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Only foundation necessary for the introduction of HGN test results is evidence that the police officer properly performed the test and that the officer administering the test was qualified to perform it.

Berger, 551 N.W.2d at 424.

#### III. Purpose and Limits of HGN

HGN test results are admissible to indicate the presence of alcohol. *Berger*, 551 N.W.2d at 424 n.1.

#### Minnesota

#### I. Evidentiary Admissibility

Court found that HGN meets the *Frye* standard of admissibility. *State v. Klawitter*, 518 N.W.2d 577, 585 (Minn. 1994).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Police officers must testify about their training in and experience with the HGN test. See generally Klawitter, 518 N.W.2d at 585-86.

### III. Purpose and Limits of HGN

HGN admissible as evidence of impairment as part of a Drug Evaluation Examination in the prosecution of a person charged with driving while under the influence of drugs. See generally Klawitter, 518 N.W.2d at 585.

#### Mississippi

#### I. Evidentiary Admissibility

HGN is a scientific test. However, it is not generally accepted within the relevant scientific community and is inadmissible at trial in the State of Mississippi. *Young v. City of Brookhaven*, 693 So.2d 1355, 1360-61 (Miss. 1997).

### II. Police Officer Testimony Needed to Admit HGN Test Result

Police officers cannot testify about the correlation between the HGN test and precise blood alcohol content.

Young, 693 So.2d at 1361.

### III. Purpose and Limits of HGN

HGN test results are admissible only to prove probable cause to arrest. *Young*, 693 So.2d at 1361.

HGN test results cannot be used as scientific evidence to prove intoxication or as a mere showing of impairment. Young, 693 So.2d at 1361.

#### Missouri

#### I. Evidentiary Admissibility

Court found that HGN test meets the Frye standard of admissibility. State v. Hill, 865 S.W.2d 702, 704

(Mo. Ct. App. 1993), rev'd on other grounds, State v. Carson, 941 S.W.2d 518, 520 (Mo. 1997).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer must be adequately trained and able to properly administer the test. *Hill*, 865 S.W.2d at 704.

See also, *Duffy v. Director of Revenue*, 966 S.W. 2d 372 (Mo. Ct. App. 1998). HGN not admitted at trial because the administering officer was not aware of hot to properly score the test and interpret its results.

#### III. Purpose and Limits of HGN

HGN can be admitted as evidence of intoxication. Hill, 865 S.W.2d at 704.

#### Montana

#### I. Evidentiary Admissibility

Court found that HGN is neither new nor novel; thus, Daubert does not apply. Court still finds that

HGN must meet the state's rules of evidence that are identical to the Federal Rules of Evidence. *Hulse v. DOJ, Motor Vehicle Div.*, 961 P.2d 75, 88 (Mont. 1998).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

The court held that before an arresting officer may testify as to HGN results, a proper foundation must show that the officer was properly trained to administer the HGN test and that he administered

the test in accordance with this training. Before the officer can testify as to the correlation between

alcohol and nystagmus, a foundation must be established that the officer has special training in the

underlying scientific basis of the HGN test. *Hulse*, 961 P.2d 75 (Mont. 1998).

See Also, State v. Crawford, 315 Mont. 480, 68 P.3d 848 (2003), in which the court ruled that the officer's credentials were sufficient to establish his expertise, along with evidence that he was previously qualified as an expert. They relied on Russette (2002 MT 200), stating that to establish an expert's qualifications, the proponent of the testimony must show that the expert has special training or education and adequate knowledge on which to base an opinion.

#### III. Purpose and Limits of HGN

HGN test results admissible as evidence of impairment. State v. Clark, 762 P.2d 853, 856 (Mont. 1988).

#### Nebraska

#### I. Evidentiary Admissibility

**HGN** meets the *Frye* standard for acceptance in the relevant scientific communities, and when the test is given in conjunction with other field sobriety tests, the results are admissible for the limited purpose of establishing impairment that may be caused by alcohol. *State v. Baue*, 607 N.W.2d 191 (Neb. 2000)

A police officer may testify to the results of **HGN** testing if it is shown that the officer has been adequately trained in the administration and assessment of the **HGN** test and has conducted the testing and assessment in accordance with that training. *State v. Baue*, 607 N.W.2d 191 (Neb. 2000)

### III. Purpose and Limits of HGN

"Testimony concerning **HGN** is admissible on the issue of impairment, provided that the prosecution claims no greater reliability or weight for the **HGN** evidence than it does for evidence of the defendant's performance on any of the other standard field sobriety tests, and provided further that the prosecution makes no attempt to correlate the **HGN** test result with any particular blood-alcohol level, range of blood-alcohol levels, or level of impairment."

State v. Baue, 607 N.W.2d 191 (Neb. 2000) (quoting Ballard v. State, 955 P.2d 931, 940 (Alaska App. 1998))

#### New Hampshire

### I. Evidentiary Admissibility

In State v. Dahoo (Dec. 20, 2002), the N.H. Supreme Court ruled that the HGN test is admissible under N.H. Rule of Evidence 702 and Daubert for the limited purpose of providing circumstantial evidence of intoxication. HGN test is a scientifically reliable and valid test.

N.H. Supreme Court ruled their findings binding in *Dahoo* and that courts "will not be required to establish the scientific reliability of the HGN."

### II. Police Officer Testimony Needed to Admit HGN Test Result

"Since we have already determined that the scientific principles underlying the HGN test are reliable, a properly trained and qualified police officer may introduce the HGN test results at trial." State v. Dahoo, 2002 N.H. LEXIS 179.

#### III. Purpose and Limits of HGN

"HGN results cannot be introduced at trial for the purpose of establishing a defendant's BAC level....[T]he results are not sufficient alone to establish intoxication." State v. Dahoo, Id.

#### **New Jersey**

#### I. Evidentiary Admissibility

In New Jersey, the party offering the results of a scientific procedure into evidence must comply with <u>Frye</u> and show that the procedure is generally accepted in the relevant scientific communities. A party may prove this general acceptance via "(1) testimony of knowledgeable

experts[,] (2) authoritative scientific literature[, or] (3) [p]ersuasive judicial decision." Based on the testimony of Dr. Marcelline Burns and Dr. Jack Richman, the Court found the HGN test to be generally accepted and the results thus admissible. The Court also noted the "significant number" of jurisdictions that have accepted the HGN test as admissible scientific evidence. State v. Maida, 2000 N.J. Super. LEXIS 276 (N.J. Super. Ct. Law Div. 2000).

\*But See, State v. Doriguzzi, 760 A.2d 336 (N.J. Super. 2000), which held that HGN is scientific evidence that must meet Frye Standard. However, in each trial, sufficient foundation evidence must be laid by expert testimony to assure defendants that a conviction for DUI, when based in part on HGN testing, is grounded in reliable scientific data. In this case, the appellate court reversed defendant's conviction because at trial no such foundation was presented. The court found that because HGN testing has not achieved general acceptance in the community, it is not a matter of which a court can take judicial notice.

#### II. Police Officer Testimony Needed to Admit HGN Test Result

The Court did not address this issue.

#### III. Purpose and Limits of HGN

The Court found the HGN test admissible "as a reliable scientific indicator of likely intoxication."

#### New Mexico

#### I. Evidentiary Admissibility

HGN is a scientific test. New Mexico follows the *Daubert* standard, which requires a showing of reliability before scientific evidence can be admitted. The court held that a scientific expert must testify to the underlying scientific reliability of HGN and that a police officer cannot qualify as a scientific expert. Because the State failed to present sufficient evidence regarding the HGN test's reliability, the court remanded the case stating it would be appropriate for the trial court, on remand, to make the initial determination of whether HGN testing satisfies *Daubert*. In addition, the court found HGN to be "beyond common and general knowledge" and declined to take judicial notice of HGN reliability.

State v. Torres, 976 P.2d 20 (N.M. 1999).

State v. Lasworth, 42 P.3d 844 (Ct. App. N.M. 2001), cert. denied (2002). Results of HGN test were inadmissible at trial (State v. Torres, 976 P.2d 20 (N.M. 1999). The State needed to prove that HGN was both valid and reliable.

State called Dr. Marceline Burns as a witness (reliability) but did not call an expert in a discipline such as biology or medicine to explain how the amount of alcohol a person consumes correlates with HGN (validity).

Police officers can qualify as non-scientific experts based on their training and experience. Non-scientific experts may testify about the administration of the test and specific results of the test provided another scientific expert first establishes the reliability of the scientific principles underlying the test. In order to establish the "technical or specialized knowledge" required to qualify as an expert in the administration of the HGN test, "there must be a showing: (1) that the expert has the ability and training to administer the HGN test properly, and (2) that the expert did, in fact, administer the HGN test properly at the time and upon the person in question." *State v. Torres*, 976 P.2d 20 (N.M. 1999).

State v. Lasworth, 42 P.3d 844 (Ct. App. N.M. 2001), cert. denied (2002). Court believed that state had to show that presence of HGN (BAC above .08) correlates with diminishment of driver's mental or physical driving skills (which it failed to do) & a correlation between presence of HGN and BAC above or below .08 (which it did through testimony of Dr. Burns). Court did not preclude use of results of HGN to establish probable cause for arrest or to establish grounds for administering a chemical BAC test.

### III. Purpose and Limits of HGN

The Court did not address this issue.

#### New York

## I. Evidentiary Admissibility

Prue holds that HGN test results are admissible under *Frye* standard of "general acceptance." *People v. Prue*, Indictment No. I-5-2001, Franklin County Court (November 2001).

In Gallup, the court said that it was only necessary to conduct a foundational inquiry into the techniques and the tester's qualifications for admissibility. *People v. Gallup*, Memorandum and order #13094, 302 A.D.2d 681 (3<sup>rd</sup> Dept)(2003).

The Court allowed the introduction of HGN and the results because it was properly administered and the burden of establishing that HGN is a reliable indicator of intoxication is generally accepted in the relevant scientific community was satisfied. *People v. William Miley*, NYLJ 12/6/02 p.30 col. 6 (Nassau Co. Ct 2002).

## II. Police Officer Testimony Needed to Admit HGN Test Result

The People must lay a proper evidentiary foundation in order for HGN results to be admissible at trial.

#### III. Purpose and Limits of HGN

The Court held that HGN is generally accepted in the relevant scientific community as a reliable indicator of intoxication.

#### North Carolina

#### I. Evidentiary Admissibility

HGN is a scientific test. It "does not measure behavior a lay person would commonly associate with intoxication but rather represents specialized knowledge that must be presented to the jury by a qualified expert." As a result, "until there is sufficient scientifically reliable evidence as to the correlation between intoxication and nystagmus, it is improper to permit a lay person to testify as to the meaning of HGN test results." *State v. Helms*, 504 S.E.2d 293 (N.C. 1998).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Testimony of one police officer, whose training consisted of a "forty hour training class dealing with the HGN test", was inadequate foundation for admission of HGN test results. *Helms*, 504 S.E.2d 293 (N.C. 1998).

#### III. Purpose and Limits of HGN

HGN test results are evidence of impairment. Helms, 504 S.E.2d 293 (N.C. 1998).

#### North Dakota

#### I. Evidentiary Admissibility

Court found that HGN test is admissible as a standard field sobriety test. City of Fargo v. McLaughin, 512 N.W.2d 700, 706 (N.D. 1994).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer must testify as to training and experience and that the test was properly administered.

City of Fargo, 512 N.W.2d at 708.

#### III. Purpose and Limits of HGN

"... HGN test results admissible only as circumstantial evidence of intoxication, and the officer may not attempt to quantify a specific BAC based upon the HGN test."

City of Fargo, 512 N.W.2d at 708.

#### Ohio

#### I. Evidentiary Admissibility

HGN test is objective in nature and does not require an expert interpretation. State v. Nagel, 506 N.E.2d 285, 286 (Ohio Ct. App. 1986).

Court determined that HGN was a reliable indicator of intoxication without specifically ruling on whether HGN meets *Frye* or some other standard of admissibility. *State v. Bresson*, 554 N.E.2d 1330, 1334 (Ohio 1990).

Court held that SFSTs, including HGN, must be administered in *strict compliance* with NHTSA's directives in order for the test results to be admissible. *State v. Homan*, 732 N.E.2d 952 (Ohio 2000).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer need only testify to training in HGN procedure, knowledge of the test and ability to interpret results. *Bresson*, 554 N.E.2d at 1336.

#### III. Purpose and Limits of HGN

HGN can be used to establish probable cause to arrest and as substantive evidence of a defendant's

guilt or innocence in a trial for DUI, but not to determine defendant's BAC. *Bresson*, 554 N.E.2d at 1336.

#### Oklahoma

#### I. Evidentiary Admissibility

HGN test results excluded because state failed to lay adequate foundation regarding HGN's scientific admissibility under the *Frye* standard of admissibility. Police officer's testimony alone was insufficient.

Yell v. State, 856 P.2d 996, 996-97 (Okla. Crim. App. 1993).

The *Daubert* rationale replaces the *Frye* standard as the admissibility standard for scientific evidence.

Taylor v. State, 889 P.2d 319, 328-29 (Okla. Crim. App. 1995).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer testified to training on how to administer HGN test and how the test was administered in this case. Officer also testified as to his training in analyzing HGN test results. *Yell*, 856 P.2d at 997.

#### III. Purpose and Limits of HGN

If HGN testing was found to satisfy the *Frye* standard of admissibility, HGN test results would be considered in the same manner as other field sobriety test results. HGN test results are inadmissible as scientific evidence creating a presumption of intoxication. *Yell*, 856 P.2d at 997.

#### Oregon

#### I. Evidentiary Admissibility

HGN test results are admissible under the Oregon Rules of Evidence. HGN test results are scientific in nature, are relevant in a DUI trial, and are not unfairly prejudicial to the defendant. State v. O'Key, 899 P.2d 663, 687 (Or. 1995).

### II. Police Officer Testimony Needed to Admit HGN Test Result

"Admissibility is subject to a foundational showing that the officer who administered the test was properly qualified, that the test was administered properly, and that the test results were recorded accurately."

O'Key, 899 P.2d at 670.

# III. Purpose and Limits of HGN

"... HGN test results are admissible to establish that a person was under the influence of intoxicating liquor; but is not admissible...to establish a person's BAC...." O'Key, 899 P.2d at 689-90.

Officer may not testify that, based on HGN test results, the defendant's BAC was over .10. State v. Fisken, 909 P.2d 206, 207 (Or. Ct. App. 1996).

#### Pennsylvania

#### I. Evidentiary Admissibility

The state laid an inadequate foundation for the admissibility of HGN under the *FryelTopa* standard.

Commonwealth v. Moore, 635 A.2d 625, 629 (Pa. Super. Ct. 1993).

Commonwealth v. Apollo, 603 A.2d 1023, 1028 (Pa. Super. Ct. 1992).

Commonwealth v. Miller, 532 A.2d 1186, 1189-90 (Pa. Super. Ct. 1987).

Testimony of police officer is insufficient to establish scientific reliability of HGN test. *Moore*, 635 A.2d at 692.

Miller, 532 A.2d at 1189-90.

Testimony of behavioral optometrist did not establish general acceptance of HGN test. *Apollo*, 603 A.2d at 1027-28.

## II. Police Officer Testimony Needed to Admit HGN Test Result

County detective certified as HGN instructor. Court did not comment on whether this would be enough foundation to allow the detective to testify about HGN test results. *Moore*, 635 A.2d 629.

Police officer had one-day course on HGN. Court did not comment on whether this would be enough foundation to allow the officer to testify about HGN test results. *Miller*, 603 A.2d at 1189.

#### III. Purpose and Limits of HGN

Not addressed by court.

#### South Carolina

#### I. Evidentiary Admissibility

HGN admissible in conjunction with other field sobriety tests. By implication, HGN is not regarded as a scientific test. *State v. Sullivan*, 426 S.E.2d 766, 769 (S.C. 1993).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer given twenty hours of HGN training. Sullivan, 426 S.E.2d at 769.

#### III. Purpose and Limits of HGN

HGN test results admissible "to elicit objective manifestations of soberness or insobriety . . . [E]vidence from HGN tests is not conclusive proof of DUI. A positive HGN test result is to be regarded as merely circumstantial evidence of DUI. Furthermore, HGN test shall not constitute evidence to establish a specific degree of blood alcohol content." *Sullivan*, 426 S.E.2d at 769.

#### South Dakota

#### I. Evidentiary Admissibility

If it can be shown that a horizontal gaze nystagmus test was properly administered by a trained officer, such evidence should be admitted for a jury to consider at trial along with evidence of the other accepted field sobriety tests administered in South Dakota. *STATE v. HULLINGER*, 2002 SD 83; 649 N.W.2d 253 (S.D.S.Ct. 2002); 2002 S.D. LEXIS 99

Officer may testify if properly trained and test properly administered. At the pretrial hearing, the State presented three witnesses: 1) Monte Farnsworth, training director for the Office of Highway Safety at the Division of Criminal Investigation Law Enforcement Training Academy; 2) Deputy Ludwig; and 3) Dr. Larry Menning, optometrist and expert witness. South Dakota follows a *Daubert* standard in use of expert witnesses.

#### III. Purpose and Limits of HGN

The Court did not address this issue.

#### Tennessee

#### I. Evidentiary Admissibility

HGN is a scientific test. To be admissible at trial, such evidence must satisfy the requirements of Tenn. Rules of Evidence 702 and 703. State provided an inadequate amount of evidence to allow the court to conclude that HGN evidence meets this standard.

State v. Murphy, 953 S.W.2d 200 (Tenn. 1997).

### II. Police Officer Testimony Needed to Admit HGN Test Result

HGN must be offered through an expert witness. To qualify as an expert, a police officer must establish that he is qualified by his "knowledge, skill, experience, training or education" to provide expert testimony to "substantially assist the trier of fact to understand the evidence or determine a fact in issue." Although the court did not rule out the possibility that the officer can be considered an expert, the court set a high level of proof. In this case, the court felt that although the officer had attended law enforcement training in DUI offender apprehension and the HGN test, this training was not enough to establish him as an expert. State v. Grindstaff, 1998 Tenn. Crim. App. Lexis 339 (March 23, 1998).

#### III. Purpose and Limits of HGN

The Court did not address this issue.

#### Texas

#### I. Evidentiary Admissibility

HGN admissible under the Texas Rules of Evidence. Emerson v. State, 880 S.W.2d 759, 769 (Tex. Crim. App. 1994).

A police officer must qualify as an expert on the HGN test, specifically concerning its administration and technique, before testifying about a defendant's performance on the test. Proof that the police officer is certified in the administration of the HGN test by the Texas Commission on Law Enforcement Officer Standards and Education satisfies this requirement. *Emerson*, 880 S.W.2d at 769.

# III. Purpose and Limits of HGN

HGN admissible to prove intoxication, but not accurate enough to prove precise BAC. *Emerson*, 880 S.W.2d at 769.

#### Utah

### I. Evidentiary Admissibility

HGN test admissible as other field sobriety test. Court reserved judgment as to the scientific reliability of HGN. Salt Lake City v. Garcia, 912 P.2d 997, 1001 (Utah Ct. App. 1996).

# II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer need only testify as to training, experience and observations when HGN admitted as a field test. *Garcia*, 912 P.2d at 1001.

# III. Purpose and Limits of HGN

Admissible as any other field sobriety test. Garcia, 912 P.2d at 1000-01.

## Washington

# I. Evidentiary Admissibility

It is "undisputed" in the relevant scientific communities that "an intoxicated person will exhibit nystagmus". HGN testing is not novel and has been used as a field sobriety test for "decades" and is administered the same whether investigating alcohol impairment or drug impairment. Thus, the use of HGN in drug and alcohol impaired driving cases is acceptable. State v. Baity, 140 Wn.2d 1, 991 P.2d 1151 (Wash. 2000).

"[T]he Frye standard applies to the admission of evidence based on HGN testing, unless . . . the State is able to prove that it rests on scientific principles and uses techniques which are not 'novel' and are readily understandable by ordinary persons." The state failed to present any evidence to this fact and the court declined to take judicial notice of HGN. State v. Cissne, 865 P.2d 564, 569 (Wash. Ct. App. 1994).

The Court did not address this issue.

#### III. Purpose and Limits of HGN

The Court did not address this issue.

#### West Virginia

#### I. Evidentiary Admissibility

The state did not present evidence for the court to reach "the question of whether the HGN test is sufficiently reliable to be admissible." However, the court did conclude "that even if the reliability of the HGN test is demonstrated, an expert's testimony as to a driver's performance on the test is admissibile only as evidence that the driver was under the influence. Estimates of blood alcohol content based on the HGN test are inadmissible." State v. Barker, 366 S.E.2d 642, 646 (W. Va. 1988).

The West Virginia Supreme Court modified *State v. Barker* to the extent that the *Daubert* analysis of FRE 702 is applicable to the question of admissibility of expert testimony under the West Virginia Rules of Evidence Rule 702. *Wilt v. Buracker*, 443 S.E. 2d 196 (W.Va. 1993).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Police officer's training consisted of a one-day, eight-hour training session conducted by the state police. Officer testified to giving the HGN test about 100 times. Court did not reach question of whether this would be enough to allow the officer to testify about the HGN test results. *Barker*, 366 S.E.2d at 644.

#### III. Purpose and Limits of HGN

HGN test results admissible to show probable cause in a civil hearing. Muscatell v. Cline, 474 S.E.2d 518, 525 (W. Va. 1996). Boley v. Cline, 456 S.E.2d 38, 41 (W. Va. 1995).

"[I]f the reliability of the HGN test is demonstrated, an expert's testimony as to a driver's performance on the test is admissible only as evidence that the driver was under the influence," the same as other field sobriety tests. *Barker*, 366 S.E.2d at 646.

#### Wisconsin

#### I. Evidentiary Admissibility

The court held that the HGN test results are admissible in this case because the test results were not the only evidence. The results were accompanied by the expert testimony of the officer. *State v. Zivcic*, 598 N.W.2d 565 (Wisc. Ct. App. 1999). See also, *State v. Maxon*, 633 N.W. 2d 278 (Wisc. Ct. App. 2001)

#### II. Police Officer Testimony Needed to Admit HGN Test Result

A police officer who is properly trained to administer and evaluate the HGN test can testify to the test results. A second expert witness is not needed. *State v. Zivcic*, 598 N.W.2d 565 (Wisc. Ct. App. 1999).

#### III. Purpose and Limits of HGN

The Court did not address this issue.

#### Wyoming

#### I. Evidentiary Admissibility

SFSTs, including HGN, are admissible to establish probable cause when administered in *substantial compliance* with NHTSA guidelines. Strict compliance is not necessary. The court took judicial notice of the number of states that allow HGN evidence on the basis of the "officer's training, experience and ability to administer the test". *Smith v. Wyoming*, 2000 Wyo. LEXIS 202 (Wyo. October 4, 2000).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

A police officer that is properly trained to administer and evaluate the HGN test can testify to HGN results.

Smith v. Wyoming, 2000 Wyo. LEXIS 202 (Wyo. October 4, 2000).

#### III. Purpose and Limits of HGN

HGN test results are admissible to show probable cause. Smith v. Wyoming, 2000 Wyo. LEXIS 202 (Wyo. October 4, 2000).

#### United States

#### I. Evidentiary Admissibility

U.S. V. Eric D. Horn, 185 F. Supp. 2d 530 (D. Maryland 2002) In this case, U.S. District Court in Maryland made the first application of the newly revised FRE 702 to the HGN and other SFSTs.

Results of properly administered WAT, OLS and HGN, SFSTs may be admitted into evidence in a DWI/DUI case only as circumstantial evidence of intoxication or impairment but not as direct evidence of specific BAC.

Officer must first establish his qualifications to administer the test - training and experience, not opinion about accuracy rate of test or causal connection between alcohol consumption and exaggerated HGN.

Government may prove causal connection by: judicial notice, expert testimony, or learned treatise. Horn may prove other causes by: judicial notice, cross-examination of state's expert, defense expert, or learned treatise.

U.S. V. Daras, 1998 WL 726748 (4th Cir. 1998) (Unpublished opinion). WAT and OLS were not scientific so no expert needed. Court would have applied Daubert to HGN test, but there was no need to because breathalyzer, WAT and OLS were sufficient.

HGN test was admitted as part of series of field tests. Its admission was not challenged on appeal.

U.S. v. Van Griffin, 874 F.2d 634 (9th Cir. 1989).

#### II. Police Officer Testimony Needed to Admit HGN Test Result

Foundation for HGN must address validity & reliability under FRE 702. In *Horn*, prosecution had a medical doctor and a police officer, but defense used behavioral psychologist to attack HGN literature of Dr. Marceline Burns and others.

#### III. Purpose and Limits of HGN

SFSTs may be admitted into evidence in a DWI/DUI case only as circumstantial evidence of intoxication or impairment but not as direct evidence of specific BAC. *Horn*.

Properly qualified, Officer may give opinion of intoxication or impairment by alcohol. Horn.

Note: The following states were not listed above due to a lack of case law discussion on HGN:

Colorado

Nevada

Rhode Island

Vermont( HGN was mentioned in the context of a refusal being admissible as evidence of probative guilt. State v. Blouin, 168 Vt. 119 (Vt. 1998)

Virginia '

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For future updates, please contact:

National Traffic Law Center, 99 Canal Center Plaza, Suite 510, Alexandria, Virginia, 22314 Phone: (703) 549-4253, Fax: 703-836-3195, email: <u>trafficlaw@ndaa-apri.org</u>

Or Visit there website <u>www.ndaa-apri.org</u>.

# SCIENTIFIC PUBLICATIONS AND RESEARCH REPORTS ADDRESSING NYSTAGMUS

- 1. Anderson, Schweitz & Snyder, Field Evaluation of Behavioral Test Battery for DWI, U.S. Dept. of Transportation Rep. No. DOT-HS-806-475 (1983) (field evaluation of the Standardized Field Sobriety Test battery (HGN, one-leg stand, and walk and turn) conducted by police officers from four jurisdictions indicated that the battery was approximately 80% effective in determining BAC above and below .10 percent).
- 2. Aschan, <u>Different Types of Alcohol Nystagmus</u>, 140 ACTA OTOLARYNGOL SUPP. 69 (Sweden 1958) ("From a medico-legal viewpoint, <u>simultaneous</u> recording of AGN (Alcohol Gaze Nystagmus) and PAN (positional alcoholic nystagmus) should be of value, since it will show in which phase the patient's blood alcohol curve is...").
- 3. Aschan & Bergstedt, <u>Positional Alcoholic Nystagmus in Man Following Repeated Alcohol Doses</u>, 80 ACTA OTOLARYNGOL SUPP. 330 (Sweden 1975) (abstract available on DIALOG, file 173: Embase 1975-79) (degree of intoxication influences both PAN I and PAN II).
- 4. Aschan, Bergstedt, Goldberg & Laurell, <u>Positional Nystagmus in Man During and After Alcohol Intoxication</u>, 17 Q.J. OF STUD. ON ALCOHOL, Sept. 1956, at 381. Study distinguishing two types of alcohol-induced nystagmus, PAN (positional alcoholic nystagmus) I and PAN II, found intensity of PAN I, with onset about one-half hour after alcohol ingestion, was proportional to amount of alcohol taken.
- 5. Baloh, Sharma, Moskowitz & Griffith, Effect of Alcohol and Marijuana on Eye Movements, 50 AVIAT. SPACE ENVIRON. MED., Jan 1979, at 18 (abstract available on DIALOG, file 153: Medline 1979-79) (smooth pursuit eye movement effects of alcohol overshadowed those of marijuana).
- 6. Barnes, The Effects of Ethyl Alcohol on Visual Pursuit and Suppression of the Vestibulo-Ocular Reflex, 406 ACTA OTOLARYNGOL SUPP. 161 (Sweden 1984) (ethyl alcohol disrupted visual pursuit eye movement by increasing number of nystagmic "catch-up saccades").
- 7. Burns & Moskowitz, <u>Psychophysical Tests for DWI Arrest</u>, U.S. Dept. of Transportation Rep. No. DOT-HS-802-424 (1977) (recommended the three-test battery developed by SCRI (one-leg stand, walk and turn, and HGN) to aid officers in discriminating BAC level).

- 8. Church & Williams, <u>Dose- and Time-Dependent Effects of Ethanol</u>, 54 ELECTROENCEPHALOGRAPHY & CLIN. NEUROPHYSIOL., Aug. 1982, at 161 (abstract available on DIALOG, file 11: Psychinfo 1967-85 or file 72: Embase 1982-85) (positional alcohol nystagmus increased with dose levels of ethanol).
- 9. Compton, <u>Use of the Gaze Nystagmus Test to Screen Drivers at DWI Sobriety Checkpoints</u>, U.S. Dept. of Transportation (1984) (field evaluation of HGN test administered to drivers through car window in approximately 40 seconds: "the nystagmus test scored identified 95% of the impaired drivers" at 2; 15% false positive for sober drivers, <u>id.</u>).
- 10. Fregly, Bergstedt & Graybiel, <u>Relationships Between Blood Alcohol, Positional Alcohol Nystagmus and Postural Equilibrium</u>, 28 Q.J. OF STUD. ON ALCOHOL, March 1967, at 11, 17 (declines from baseline performance levels correlated with peak PAN I responses and peak blood alcohol levels).
- 11. Goldberg, Effects and After-Effects of Alcohol, Tranquilizers and Fatigue on Ocular Phenomena, ALCOHOL AND ROAD TRAFFIC 123 (1963) (of different types of nystagmus, alcohol gaze nystagmus is the most easily observed).
- 12. Helzer, <u>Detection DUIs Through the Use of Nystagmus</u>, LAW AND ORDER, Oct. 1984, at 93 (nystagmus is "a powerful tool for officers to use at roadside to determine BAC of stopped drivers...(O)fficers can learn to estimate BACs to within an average of 0.02 percent of chemical test readings." Id. at 94).
- 13. L.R. Erwin, DEFENSE OF DRUNK DRIVING CASES (3d ed. 1985) ("A strong correlation exists between the BAC and the angle of onset of (gaze) nystagmus." Id. at 8.15A(3).
- 14. Lehti, The Effect of Blood Alcohol Concentration on the Onset of Gaze Nystagmus, 136 BLUTALKOHOL 414 (West Germany 1976) (abstract available on DIALOG, file 173: Embase 1975-79) (noted a statistically highly significant correlation between BAC and the angle of onset of nystagmus with respect to the midpoint of the field of vision).
- 15. Misoi, Hishida & Maeba, <u>Diagnosis of Alcohol Intoxication by the Optokinetic Test</u>, 30 Q.J. OF STUD. ON ALCOHOL 1 (March-June 1969) (optokinetic nystagmus, ocular adaptation to movement of object before eyes, can also be used to detect central nervous system impairment caused by alcohol. Optokinetic nystagmus is inhibited at BAC of only .051 percent and can be detected by optokinetic nystagmus test. Before dosage subjects could follow a speed of 90 degrees per second; after, less than 70 degrees per second).

- 16. Murphree, Price & Greenberg, <u>Effect of Congeners in Alcohol Beverages on the Incidence of Nystagmus</u>, 27 Q.J. OF STUD. ON ALCOHOL, June 1966, at 201 (positional nystagmus is a consistent, sensitive indicator of alcohol intoxication).
- 17. Nathan, Zare, Ferneau & Lowenstein, Effects of Congener Differences in Alcohol Beverages on the Behavior of Alcoholics, 5 Q.J. OF STUD. ON ALCOHOL SUPP., may 1970, at 87 (abstract available on DIALOG, file 11: Psychinfo 1967-85) (incidence of nystagmus and other nystagmoid movements increased with duration of drinking).
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#### SESSION IV

OVERVIEW OF DRUG RECOGNITION EXPERT PROCEDURES

## SESSION IV OVERVIEW OF DRUG RECOGNITION EXPERT PROCEDURES

Upon successfully completing this session, the participants will be able to:

- Name the components of the drug evaluation and classification process.
- o State the purposes of each component.
- o Describe the activities performed during each component.
- o Correctly answer the "Topics for Study" questions at the end of this session.

#### A. Components of the Drug Recognition Expert Procedure

The Drug Recognition Expert procedure is a systematic, standardized method of examining a suspect to determine:

- (1) Whether the suspect is impaired; and if so,
- (2) Whether the impairment relates to drugs or a medical condition; and if drugs,
- (3) The category or combination of categories of drugs that are the likely cause of the impairment.

It is a <u>systematic</u> process because it is based on a <u>complete set</u> of observable signs and symptoms that are known to be reliable indicators of drug impairment. A drug recognition expert never reaches a conclusion based on any <u>one</u> element of the examination, but instead on the <u>totality</u> of facts that emerge. These facts are obtained from careful observations of the suspect's:

- o appearance
- o behavior
- o performance of psychophysical tests
- o eyes
- o vital signs
- o any other evidence

The process is <u>standardized</u> in that it is conducted in exactly the same way, by every drug recognition expert, for every suspect. A drug recognition expert never leaves out any step in the examination, even if it is not expected to provide a positive indicator of the type of drugs that the expert may suspect. The expert also never modifies the examination by including some unproven "indicators" that he or she thinks <u>may</u> be helpful.

Standardization is very important, because it helps to:

- o avoid errors of omission or commission
- o promote professionalism among drug recognition experts
- o secure acceptance in court

The Drug Recognition Expert procedure can be broken down into twelve major components. The checklist on the next page lists the twelve components in the sequence in which they must be performed. <u>Always</u> follow the checklist when conducting an examination.

# NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION DRUG EVALUATION AND CLASSIFICATION PROGRAM

## DRUG INFLUENCE REPORT CHECKLIST

|         | .1.   | Breath alcohol test   |
|---------|-------|---|
|         | 2.    | Interview of arresting officer<br>(Note: Gloves must be worn from this point on.) |
|         | 3.    | Preliminary examination and first pulse   |
|         | 4.    | Eye examinations  |
|         | 5.    | Divided attention tests:  |
|         |       | Romberg balance   |
|         | -     | Walk and turn   |
|         | •     | One leg stand   |
|         |       | Finger to nose  |
|         | 6.    | Vital signs and second pulse  |
|         | 7.    | Dark room examinations and ingestion examination                                  |
|         | 8.    | Check for muscle tone   |
| <u></u> | . 9.  | Check for injection sites and third pulse   |
|         | _ 10. | Interrogation, statements, and other observations                                 |
|         | _ 11. | Opinion of evaluator  |
|         | _ 12. | Toxicological examination   |

1. The <u>Breath Alcohol Test</u>, to determine the suspect's blood alcohol concentration (BAC).

By obtaining an accurate and immediate measurement of BAC, the drug recognition expert can determine whether alcohol may be contributing to the suspect's observable impairment, and whether the concentration of alcohol is sufficient to be the sole cause of that impairment.

It is always possible that a person suspected of being under the influence of drugs other than alcohol may actually have consumed only alcohol. However, it is also very common to find that a suspect has consumed alcohol and other drugs.

2. The <u>Interview of the Arresting Officer</u>, to take advantage of the things that he or she may have seen or heard during earlier contact with the suspect.

Most arresting officers are not as knowledgeable about drugs as are drug recognition experts. The arresting officers may have uncovered some drug paraphernalia, or overheard the suspect using drug related "street" terms, without recognizing their significance. A few minutes spent in a careful discussion with the arresting officer can alert the drug recognition expert to the most promising areas of investigation to be explored with the suspect.

3. The <u>Preliminary Examination</u>, which is a structured series of questions, specific observations and simple tests that provides the first opportunity to examine the suspect closely and directly. <u>NOTE: to avoid infection, the drug recognition expert must wear gloves from this portion of the examination on.</u>

One major purpose of the preliminary examination is to determine if the suspect may be suffering from an injury or some other condition not necessarily related to drugs. Another major purpose is to begin systematically assessing the suspect's appearance, behavior, etc. for signs of possible drug influence.

4. The <u>Examinations of the Eyes</u>, which include Horizontal Gaze Nystagmus, Vertical Gaze Nystagmus and a check for Lack of Convergence.

Nystagmus will be caused with certain categories of drugs. Nystagmus, an involuntary jerking that may occur as the eyes gaze to the side or as they are elevated. The presence of nystagmus, and the point at which it becomes observable, can shed light on the possible presence of those categories and the extent to which they may be affecting the suspect.

The inability of the eyes to converge toward the bridge of the nose also gives evidence of the possible presence of certain categories of drugs.

5. The <u>Divided Attention Psychophysical Tests</u>, which include the Romberg Balance; the Walk and Turn; One Leg Stand; and, the Finger to Nose.

The suspect's performance of these tests produces articulable evidence of their psychophysical impairment. The specific errors of omission or commission may point toward the categories of drugs that are behind that impairment.

6. The <u>Vital Signs Examinations</u>, which include systematic checks of the suspect's blood pressure; pulse rate; and, temperature.

Certain categories of drugs may elevate blood pressure, pulse rate and raise the body temperature. Other drugs would have precisely the opposite effects. Vital signs as well as physical observations thus provide much valuable evidence of the presence and influence of a variety of drug categories.

7. The <u>Dark Room Examinations</u>, which include systematic checks of the size of the pupils of the suspect's eyes; the reaction of the pupils to light; and, evidence of ingestion of drugs by nose or mouth.

Certain categories of drugs affect the eyes, and especially the pupils, in predictable ways. By examining the eyes under carefully controlled lighting conditions, important evidence of those drug categories may be obtained.

8. Examination for Muscle Tone

Certain categories of drugs will cause the muscles to become rigid. Some other categories may cause the muscles to become flaccid.

Begin with the left arm, firmly grasp the upper arm and slowly moving down to determine whether the muscle tone is flaccid, normal or rigid.

9. Examination for Injection Sites, e.g., via hypodermic needles.

Users of certain categories of drugs routinely or occasionally ingest their drugs via injection. Evidence of needle use (scars, "tracks", etc.) may be found on veins along the neck, arms, legs, etc.

#### 10. Suspect's Statements and Other Observations.

Based on the nine previous components of the drug examination, the drug recognition expert should have formed at least an articulable suspicion as to the category or categories of drugs that may be present. The expert then can proceed, in full conformance with the suspect's Constitutional rights, to attempt to interview the suspect concerning the drug or drugs involved.

#### 11. Opinions of the Evaluator

Based on all of the evidence and observations obtained during the preceding ten steps, the drug recognition expert should be able to reach an informed opinion concerning:

- o Whether the suspect is under the influence of a drug or drugs; and if so,
- o The category or combination of categories of drugs that is the probable cause of the suspect's impairment.

These conclusions should be documented, along with a narrative capsule summary of the observed facts that led to the conclusions.

12. The <u>Toxicological Examination</u>, which is a chemical test or tests that can provide scientific, admissible evidence to substantiate the drug recognition expert's conclusions.

#### B. General Guidelines For Interviewing The Arresting Officer

In most cases, the people you examine on suspicion of drug impairment will not be people whom you arrested. Some other officer usually will have had the first contact with the suspect, and will have made the arrest. The charge or charges of arrest may vary widely, and may or may not involve a traffic related offense. In any event, the situation usually will be that the arresting officer (or someone else) recognizes that the suspect may be impaired, has some reason to believe that drugs other than alcohol may be contributing to the impairment, and summons you to conduct an examination of the suspect.

In a particular case, the arresting officer may happen to be quite knowledgeable about drugs and may have some very well informed suspicions as to what types of drugs the suspect may be using. In another case, the arresting officer may not have the slightest idea as to the kinds of drugs that may be involved. But in all cases there is the possibility that the arresting officer may have seen, or heard, or smelled or uncovered something that could be a significant clue of drug influence to a trained drug recognition expert. A few minutes spent in a careful, systematic interview of the arresting officer may supply the DRE with some very important insights as to the categories of drugs most likely to be found in the particular case at hand.

The key concept here is that the interview be <u>systematic</u>. The DRE shouldn't simply ask the arresting officer an open-ended question such as "What do we have here?" The arresting officer may not be sufficiently knowledgeable about drugs to recognize what is relevant, and what is not. Instead, the DRE should inquire in a logical sequence as to the suspect's behavior, statements and any physical evidence that may have been uncovered.

#### Inquiries concerning the suspect's behavior

- (1) Was the suspect operating a vehicle? (This may help to establish whether the implied consent law applies to this particular case, and also serve to identify whether potential traffic law violations may be relevant.)
- (2) What vehicle/operator actions, maneuvers, etc. were observed? (This may disclose evidence of impaired divided attention ability, relaxed inhibitions, etc.)
- (3) Was there a collision?
  (This can indicate whether the suspect may have suffered injuries that could confound the drug examination.)
- (4) Was the suspect observed smoking, drinking or eating?
  (All of these are common means of ingesting various drugs.)
- (5) Was the suspect apparently inhaling any substance? (Another common method of ingesting certain drugs.)
- (6) How did the suspect respond to the arresting officer's command to stop? (Actions during the stopping sequence may also disclose indicators of impairment.)
- (7) Did the suspect attempt to conceal or throw away any items or materials? (Such materials may have been drugs or drug-related paraphernalia.)

(8) What has been the suspect's attitude and demeanor during contact with the arresting officer, and have there been any changes? (This information can be very relevant to the DRE's own safety, and can also shed light on the kinds of impairment the suspect may be experiencing.)

#### Inquiries concerning the suspect's statements

- (9) Has the suspect complained of an illness or injury? (An illness or injury could confound the drug examination, but could also suggest the effects of certain types of drugs.)
- (10) Has the suspect used any "street terms" or slang associated with drugs or drug paraphernalia? (Persons who use such terms are likely to be users of the drugs to which the terms relate.) NOTE: The arresting officer might not recognize "street terms" for what they are. It may be useful to follow up this question by asking the officer whether the suspect used any unusual or unfamiliar words or phrases,
- (11) How has the suspect responded to the arresting officer's questions? (Impairment may be evident, in a variety of ways, from the manner of the suspect's responses.)
- (12) Does the suspect's speech appear to be slurred, slow, rapid, thick, mumbled, incoherent, etc? (Various types of drugs may affect speech in various ways.)
- (13) What, specifically, has the suspect said to the arresting officer?

  (Numerous utterances may shed light on the kinds of drug-related effects that the suspect is experiencing.)

#### Inquiries Concerning Physical Evidence

- (14) What items or materials were uncovered during the search of the suspect and/or vehicle?(Even seemingly innocuous or familiar items may be recognized by trained DREs as being associated with possible drug use.)
- (15) Were any smoking paraphernalia uncovered? (Even routine smoking items, such as commercially produced cigarettes, pipes, etc. may disclose evidence of drugs.)

- (16) Was there any injection related material?

  (For example, such material could include needles, syringes, leather straps or rubber tubes used as tourniquets to help expose veins, bent spoons or bottle caps used in heating and dissolving drugs, etc.)
- (17) Were there any balloons, plastic bags, small metal foil wrappings or any similar items? (These kinds of items frequently are used as drug containers.)
- (18) What was the suspect's blood alcohol concentration?
  (If an attempt to administer a breath test has not yet been made, the drug recognition expert should do so now.)

#### C. Overview of The Preliminary Examination

The <u>preliminary examination</u> of the suspect consists of a series of questions; observations of the suspect's face, breath and speech; an initial series of checks of the suspect's eyes; and, the first of three checks of the suspect's pulse rate that will be made during the drug evaluation and classification process. As a safety precaution, officers should secure their weapons prior to beginning the examination.

The <u>questions</u> are a set of formal inquiries about any injuries or medical problems from which the suspect may be suffering. Courts generally hold that these questions do not conflict with the suspect's Constitutional rights. However, you should be guided by your department's policy and procedure concerning the possible need to admonish the suspect of those rights prior to posing these questions. The questions include:

- o Are you sick or injured?
- o Do you have any physical defects?
- o Are you diabetic or epileptic?
- o Do you take insulin?
- o Are you under a doctor's or dentist's care?
- o Are you taking medication?

Answers to these questions may disclose circumstances that could impede or confound the subsequent steps in the drug examination. The suspect's answers, and the <u>manner</u> in which he or she answers, could also give evidence of the possible presence of certain types of drugs. If any affirmative responses are given, the DRE should ask appropriate follow up questions.

The <u>observations of the suspect's face</u>, breath and speech are straight forward. Make note, for example, if the face appears flushed or pale, and if the suspect appears to be perspiring. Any noteworthy odors of the breath should be recorded, such as the odor of alcoholic beverages; an odor of marijuana; or, a chemical odor, such as ether. If the suspect's speech is in any way distorted, this too should be recorded.

The <u>initial checks of the suspect's eyes</u> include some very important items. One of these is the visual check for equal pupil size. Look at the suspect's eyes to determine whether the pupils appear to be equal. If the pupils appear to be unequal, a further check will be necessary. This check is made by using a device called a pupillometer, which has a series of small dark circles of various diameters. The diameter is measured and indicated in millimeters (abbreviated "mm"). By holding the pupillometer alongside the suspect's eye, you can determine which circle is approximately the same size as the pupil. You must check <u>both</u> pupils. You may observed Resting Nystagmus at this time.

A second important check of the eyes is an <u>assessment of the eyes' tracking ability</u>. You should hold a pencil, penlight or similar object about 12 - 15 inches in front of the suspect's face, and move it smoothly to the suspects extreme left, and smoothly back to the extreme right, instructing the suspect to follow the motion with their eyes. Always make at least two complete passes in front of the suspects eyes. If the two eyes do not exhibit the same tracking ability, this too may indicate a possible head injury or medical problem.



While you are assessing the suspect's tracking ability, you can also perform a preliminary assessment of whether Horizontal Gaze Nystagmus is present in the suspect's eyes. In particular, if the nystagmus or "jerking" is observed, an <u>initial estimation of the angle of onset</u> can be made. The approximate angle of onset <u>may</u> help to determine whether the suspect has consumed some drug other than alcohol,

Research has shown that, when an individual consumes alcohol and no other drug, there is a statistical relationship, or <u>correlation</u>, between the angle of onset of nystagmus and the individual's blood alcohol concentration. This statistical relationship can be expressed by the formula

BAC = 50 - ANGLEor, ANGLE = 50 - BAC

In this formula, "ANGLE" is the nystagmus onset angle, measured in degrees, and "BAC" is the "blood alcohol concentration."

To illustrate how this formula is used, suppose you examine a suspect who is known to have a blood alcohol concentration of 0.05. If alcohol is the <u>only</u> drug in that suspect's system, one would expect that the nystagmus onset angle would be <u>45 degrees</u>.

(from the formula, ANGLE = 50 - 5 = 45.)

But, suppose the suspect also has ingested some other drug that also causes nystagmus. For example, the suspect may have taken some central nervous system depressant other than alcohol; or may have used PCP or an inhalant. Then, the nystagmus onset angle may occur much earlier than would be expected from the alcohol alone. For instance, if the suspect with the 0.05 BAC had also smoked some PCP, the onset of nystagmus might occur as early as 30 degrees.

Thus, if there is a significant disparity between the nystagmus onset angle, and what would be expected from the known BAC, the drug recognition expert should be alert to the possible presence of some other nystagmus causing drug.

The student is cautioned, however, not to attach too much importance to the nystagmus onset angle as an indicator of the presence of drugs other than alcohol. In the first place, not all drugs will cause nystagmus. Cannabis, for example, will not. Neither will Narcotic Analgesics, Hallucinogens or Central Nervous System Stimulants. Thus, a suspect could have consumed a small amount of alcohol, and smoked a large quantity of marijuana, and be very much impaired, but still exhibit a nystagmus onset angle that is consistent with a low BAC. In the second place, the relationship between BAC and onset angle is not really a precise, mathematical one, but rather is an approximate, statistical average. Human beings, and their eyes, do not all react to alcohol or other drugs in exactly the same way. The correlation between BAC and onset angle is susceptible to a great degree of individual variation. Thus, the average person, at 0.10 BAC, may exhibit a nystagmus onset angle of about 40 degrees. But individual humans, at the same BAC, could easily exhibit onsets of 35 degrees, or 45, or even wider variations.

The nystagmus onset angle is one clue to consider in assessing whether drugs other than alcohol may be present. But it certainly is not the only clue to consider, and it is far from being the most important.

One final thing to be examined in the initial checks of the suspect's eyes is the condition of the eyelids. Many drugs will cause the eyelids to droop, as the user exhibits a sleepy appearance. A drooping of one eyelid, but not the other, possibly signifies an injury or other medical problem. The medical, or technical, term for droopy eyelids is <u>Ptosis</u>.

The final element in the preliminary examination is the <u>first check of the suspect's pulse rate</u>. Pulse rate is one of the vital signs that serve as very reliable indicators of the possible presence of certain categories of drugs. Pulse rate can also be affected by anxiety, and it is common for an arrestee to experience anxiety while being examined by a police officer. Pulse rate is measured near the beginning of the drug evaluation and classification examination, again during the middle, and finally near the end to allow the suspect's anxiety to "settle down" before the last measurement.

#### D. Overview of The Examinations of The Eyes

The eye examinations consist of three tests, namely Horizontal Gaze Nystagmus, Vertical Gaze Nystagmus and Lack of Convergence.







<u>Horizontal Gaze Nystagmus</u> (HGN) which is the involuntary jerking of the eyes occurring as the eyes gaze toward the side, is the most complex of the three tests, although it is not difficult to administer or interpret. It consists of three separate checks, each of which is performed independently in each eye.

Check one: does the eyeball pursue smoothly?

Start with a stimulus (such as a pencil or penlight) held vertically in front of the suspect's face, and about 12-15 inches away from their nose. Keep the tip of the stimulus raised slightly higher than the suspect's eyes. Tell the suspect to keep the eyes focused on the tip of the stimulus, to hold the head steady, and to follow the movement of the stimulus with the eyes only.



Move the stimulus smoothly to the suspect's extreme left, then smoothly all the way to his/her extreme right, then smoothly back to the extreme left and then back to the extreme right. The stimulus should be moved at a speed that requires approximately 2 seconds to bring it from the center all the way to the side. Two complete passes should be made in front of the eye: that is, from the center to left the side, back to the right side, back to the left side again, back to the right side, and finally back to the center.

While the eyeball is moving, the examiner should observe it closely for signs of a "lack of smooth pursuit". If a person is sober (i.e., free of alcohol or other drugs that cause nystagmus), the eyeball should glide smoothly in the socket, in much the same fashion that a windshield wiper slides smoothly across the windshield when it is raining steadily. But if the person is under the influence of alcohol or other nystagmus-causing drugs, the eyeball usually will jerk noticeably as it moves, similar to a windshield wiper dragging across a dry windshield.



<u>Check two</u>: Is there distinct and sustained jerking of the eyeball when held at maximum deviation?

Again position the stimulus about 12 - 15 inches in front of the suspect's face, with the tip of the stimulus above eye level. Instruct the suspect to keep the head still and follow the stimulus with the eyes. Move the stimulus all the way to the subject's left side, until the eyeball is turned to its maximum deviation. Hold the stimulus in that position for at least four seconds, and carefully observe the eyeball. Then, repeat the

process with the stimulus at the suspect's extreme right side. Persons under the influence of alcohol or other nystagmus causing drugs usually will exhibit a distinct, sustained, pulsating, very pronounced jerking when the eyeball is at maximum deviation. In order to consider this clue as "present", you must observe a clear sustained and unmistakable jerking. A slight, barely visible tremor does not constitute "distinct jerking".

Check three: what is the angle of onset of the jerking?



Again position the stimulus about 12 - 15 inches in front of the suspect, and slowly move the stimulus toward the suspect's left side. As you are moving the stimulus, observe the eyeball closely for the first sign of jerking. When you think that you first see the eyeball jerk, stop the stimulus and hold it steady. Verify that the eyeball is jerking: if it is not, start moving it toward the side again until you see the jerking start. Then, repeat the process for the suspect's right eye.

Once you have found the onset point, estimate the angle at which the eyeball is gazing. Remember that there is a statistical correlation that gives the approximate BAC value corresponding to a particular angle:

BAC = 50 - Angle

Vertical Gaze Nystagmus is a very simple test to administer. Hold the stimulus horizontally in front of the suspect's eyes, and about 12 - 15 inches in front of the suspect's face. Instruct the suspect to focus on the center of the stimulus, and to keep their head steady. Raise the stimulus until the suspect's eyes are elevated as far as possible. Hold the eyes at that position for four seconds. If the eyes are observed to jerk up and down noticeably, Vertical Gaze Nystagmus is "present".

It is also very easy to test for <u>Lack of Convergence</u>. Begin by holding the stimulus vertically in front of the subject's eyes, about 12 - 15 inches from the suspect's face. Instruct the suspect to focus on the tip and to keep the head still. Start moving the stimulus in a circle (either direction) in front of the suspect's eyes, and observe the eyes to verify that the suspect is tracking the stimulus. Then, slowly push the tip of the stimulus in toward the bridge of the nose, holding the stimulus on the bridge of the suspects nose for approximately one (1) second observe the eyes then remove the stimulus from the suspects face. If one eye drifts away to the side instead of converging toward the bridge of the nose, Lack of Convergence is "present". It should be noted that there are many individuals whose eyes are unable to converge normally.

#### E. Review of The Divided Attention Psychophysical Tests

Four divided attention tests are administered to suspects during a drug evaluation and classification examination.

#### Romberg Balance

Tell the suspect to stand straight with the heels together and the arms at the sides, and to maintain that position while you give the instructions. Ask the suspect if he or she understands.

Tell the suspect that he or she will have to tilt the head back slightly (demonstrate this) and close the eyes (do <u>not</u> close your own eyes while demonstrating: maintain your personal safety). Tell the suspect that he or she is to stand perfectly straight in that position, and estimate when 30 seconds have elapsed. When the suspect believes that 30 seconds are over, they must open their eyes, tilt their head forward and say stop.

Ask the suspect if they understand.

Tell the suspect to tilt their head back and close their eyes. Give the start command and start timing the suspect, making a note of how much time actually has elapsed when the suspect estimates that 30 seconds have passed. Also, make a note of the direction and degree of swaying that occurs when the suspect is performing the test.

#### Walk and Turn

Requires a straight line, long enough to allow a suspect to take 12-15 heel-to-toe steps.

Instruct the suspect to place their left foot on the line, then to place their right foot on the line with the heel of the right against the toes of the left. <u>Demonstrate</u> the proper stance to the suspect. Tell the suspect to keep their arms at their side and to remain standing in that position while you give the rest of the instructions. <u>EMPHASIZE THAT THE SUSPECT IS NOT TO START WALKING UNTIL YOU SAY TO DO SO.</u> Ask the suspect if they understand.

Give the following instructions, accompanied by clear demonstrations, as appropriate:

- o Take nine heel-to-toe steps along the line. (Demonstrate several heel-to-toe steps).
- o Keep your arms at your side at all times.
- o Watch your feet while walking and count your steps out loud.
- When you have taken the 9th step, leave the front foot on the line, and turn around, using a series of small steps with the other foot. (Demonstrate a proper turn).
- o Take nine heel-to-toe steps back along the line.
- o Once you start walking, do not stop until the test is completed.

Ask the suspect if they understand.

During the instructions stage of the Walk and Turn test, carefully observe the suspect to determine if the following actions occur:

- (1) Does the suspect break away from the heel-to-toe stance?
- (2) Does the suspect start walking too soon?

Make a note of how often these occur.

During the walking stage of the test, carefully observe the suspect and note:

- (3) Whether the suspect stops walking;
- (4) Steps off the line;

- (5) Fails to touch heel to toe (by more than 1/2 inch);
- (6) Raises the arms from their side (more than 6 inches).

Make a note of how often these occur.

Also, watch the suspect closely to determine:

- (7) The number of steps the suspect takes, first up and then down the line. (Make a note if the suspect takes more or fewer than nine steps in either direction).
- (8) Whether the suspect turns improperly (i.e., in any fashion other than the way in which you explained and demonstrated the turn).

#### One Leg Stand

Tell the suspect to stand straight with their feet together, their arms at their side, and to maintain that position while you give the instructions. Ask the suspect if they understand.

Tell the suspect that they will have to raise their right foot up in front of them, and hold it approximately 6 inches off the ground with the toes pointed forward so the foot is parallel to the ground. (Demonstrate the proper one-leg stance.) Tell the suspect to keep their arms at their side and to look at their foot. Tell the suspect to count out loud until told to stop. They should be instructed to count out loud as follows "one-thousand-one, one-thousand-two, one-thousand-three, until told to stop. (Demonstrate several seconds of counting.)

Remember to time the suspect for 30 seconds.

Ask the suspect if they understand.

Tell the suspect to perform the test. After the suspect has completed the test, allow them to relax for about 10 seconds. Prior to having the suspect to stand on the other foot and perform the test again, re-instruct the test.

While the suspect is performing the test, observe them carefully to determine if the following actions occur:

- (1) Does the suspect raise their arms?
- (2) Does the suspect sway?
- (3) Does the suspect hop?
- (4) Does the suspect put their foot down before the 30 seconds are up?

Make a note of how often each occurs.

#### Finger to Nose

Tell the suspect to stand straight with their feet together, their arms down at their sides, hands closed with their index fingers extended.

Tell the suspect that when you instruct them to, they are to touch the tip of one of their index fingers to the tip of their nose. They then need to bring their hand back down to their side.

Demonstrate how to properly touch the tip of the finger to the tip of the nose and how to tilt their head back. (For officer safety, do not close your eyes.)

Ask the suspect if they understand.

Tell the suspect to close their eyes and tilt their head back.

Tell the suspect to bring their hands up in the following sequence: left, right, left, right, left.

Make a note of <u>exactly</u> where the tips of the fingers contact the suspect's nose or face.

#### F. Overview of The Vital Signs Examinations

The three vital signs examined during the drug evaluation and classification process are pulse rate; blood pressure; and, body temperature. They are covered in some detail in Session VII of this training program. For the time being, some simple definitions are sufficient:

<u>Pulse rate</u> is the number of pulsations, or surges of blood, that occur in an artery in one minute. Each time the heart "beats" (or contracts) it sends a surge of blood through the arteries. These surges can easily be felt if you place your finger tips over an artery and apply slight pressure. All you have to do to measure pulse rate is to feel the surges while looking at a wristwatch, and count the number of surges that occur in thirty seconds, then multiply by two.

<u>Blood pressure</u> is the force that the circulating blood exerts on the walls of the arteries. A person's blood pressure constantly changes, from instant to instant. When the heart contracts, and sends the blood surging through the arteries, the blood pressure reaches its highest value, this is called the <u>systolic</u> pressure. As the heart expands, the surge of blood slows, and the pressure drops.

When the heart is fully expanded, the blood pressure falls to its lowest level, which is called the <u>diastolic</u> pressure.

Then, the heart starts to contract and the pressure rises again. The blood pressure continuously rises and falls, cycling between the systolic and diastolic values, as the heart beats.

Measurement of blood pressure requires a special instrument called a <u>sphygmomanometer</u>. A stethoscope is also needed.

Body temperature is measured by using a thermometer.

#### G. Overview of the Dark Room Examinations

The principal activity during the dark room examinations is the estimation of the size of the suspect's pupils. This is done using the pupillometer, in the same fashion as described during the preliminary examinations. However, in this case, pupil size must be estimated under three different lighting conditions, two of which will be controlled by a pen light.

#### Estimation of pupil size in room light

Have the subject gaze at a point several feet away in room light. This point should be behind the DRE and slightly above the subject's eye level. Care should be taken to ensure the subject is not staring at a light source. You must position the pupillometer along side the eye to ensure an accurate estimation. After checking both the left and right eye, turn off the lights and wait 90 seconds to allow your eyes and the suspect's eyes to adapt to the dark.

#### Estimation of pupil size under near-total darkness.

Cover the tip of the pen light completely with your thumb or index finger, so that only a red glow emerges through your skin and no white light shines out. Bring the pen light up toward the suspect's face until it is just possible to distinguish the pupil from the iris, or colored portion of the eye. Hold the pupillometer alongside the eye and identify the circle that is closest in size to the pupil. Always do this first for the left eye, and then for the right.

#### Estimation of pupil size under direct light.

Leave the tip of the pen light completely uncovered. Bring the pen light up along the side of the suspect's face, then shine the beam directly into the suspect's eye. Hold the pen light away from the face so that the beam just exactly fills the entire eye socket. The light should be left in the subject's eye for 15 seconds. Hold the pupillometer alongside the eye, and identify the circle that is closest in size to the pupil. Always do this first for the left eye, and then for the right.

While checking the pupil size under direct light, you must evaluate the pupil's reaction to light. If a person is not under the influence of any drug, his or her pupils should constrict within one second when the pen light's beam strikes the eye directly. But certain categories of drugs may cause the constriction to occur more slowly, or perhaps not to occur at all.

Two other activities conducted in the darkroom are the <u>examination of the nasal</u> area and the <u>examination of the oral cavity</u>. In both cases, you must look closely for signs of drug use, or even for traces of a drug or concealed quantities of drugs.

Tell the suspect to tilt their head back, and shine the pen light directly into the nostrils. Look for traces of drugs or other materials in the nasal passages, and look for redness, scarring or abrasions that might indicate repeated "snorting" of certain drugs.

Tell the suspect to open their mouth wide. Shine the pen light directly into the mouth. Shine the beam around the inside of the mouth to illuminate all areas.

Look for residual quantities of drugs and for unusual coloring of the inside surfaces of the mouth (e.g., green or reddish coloring). Look near the gums for small balloons, bags, tissue or foil wrappings, or other small containers of drugs. Tell the suspect to elevate their tongue, and look under the tongue for debris, or other evidence of ingestion.

Two important things should be kept in mind about the dark room examinations. First, a second officer should always accompany you and the suspect into the dark room, simply as a safety precaution. Second, after entering the dark room, no examination should begin for 90 seconds, to allow your eyes, and the suspect's to adjust to the darkness.

#### H. Examination of Muscle Tone

To begin the examination of the muscle tone start with the left arm, firmly grasping the upper arm and slowly moving down. The muscle will appear flaccid, normal or rigid to the touch. Then check the right arm in the same manner.

#### I. Examination for Injection Sites

Persons who frequently inject drugs often develop lengthy scars, called "tracks", from repeated injections into the same vein. Fresh injection sites often can be found at the end of a "track". Many times, a fresh injection site will not be easily visible to the naked eye. Therefore, a drug recognition expert should search for injection sites

by <u>touch</u>, running the fingers along such places as the neck, forearms, wrists, back of hands, or other suspected areas of injection. When a possible injection site is located, a <u>ski light</u> can be used to provide a magnified and illuminated visual inspection.

Hypodermic needles are sized according to <u>gauge</u>. The gauge of a needle is a measurement of its inside diameter. The gauge number represents how many needles of that size would be needed to equal one inch. For example, a 24 gauge needle has an inside diameter of 1/24th of an inch; a 10 gauge needle has an inside diameter of 1/10th of an inch. Therefore, the higher gauge, the smaller the diameter of the needle. The third pulse is taken during this step.

#### J. Suspect Statements

The DRE should be aware that often-times during the evaluation process, suspect's may make numerous spontaneous incriminating statements. These statements should be documented. DRE's should check to make sure that the suspect has been appropriately advised of their rights. DRE's should ask additional probing questions as appropriate.

#### K. Opinion of DRE

By this point in the evaluation, the DRE should have formed an opinion of the category or categories of drugs responsible for any observed impairment. This opinion is based on the totality of the evaluation.

#### L. Obtaining a Toxicological Sample

The process of obtaining toxicological samples will vary depending upon individual state implied consent statutes. The laws of your state will dictate what samples can be taken, i.e. urine, blood, saliva and/or breath. The containers for these samples will also vary depending on the type of test used and the laboratory that will do the analysis. A department or agency policy should delineate how each sample should be taken. You will need to become familiar with and follow your department's policies and procedures governing toxicological sample collection, handling, shipment, etc. Consideration should be given to witnessing the sample being obtained, chain of custody for the evidence, preservation and the return of the analysis by the laboratory.

## M. A Brief Overview of Toxicology

#### 1. Introduction

The material in this Section is intended to provide the basic understanding of chemical testing for drugs that a DRE needs to have to appreciate fully the role of toxicology in this program. As far as possible, the information has been kept non-technical. It will not be covered in depth in class, but you are expected to be familiar with what is given in this manual.

#### 2. Some Key Concepts

**DEFINITION**: Toxicology is the study of poisons and their effects on living organisms. For DRE purposes, the "poisons" in question are drugs, and in some cases the metabolites of drugs. A DRE Toxicologist analyzes physical specimens such as blood and urine for drugs and drug metabolites.

A <u>metabolite</u>, for DRE purposes, is a chemical substance derived from a drug, and that is formed by the action of the body upon that drug. It is important to be aware that some metabolites are themselves <u>psychoactive</u>. That is to say, some metabolites cause impairment: Therefore, a metabolite may also <u>be</u> a drug. It is also important to know that it may be the metabolite, and not the original or "parent" drug that is detected in the laboratory. In some instances, finding a particular metabolite allows the chemist to conclude with certainty that a specific drug was ingested, even though the methods and equipment available to the lab can't detect that drug itself. Finding the metabolite is good, scientific evidence that the drug was there.

#### 3. Limitations of Toxicology

Toxicology has some important limitations. One limitation is that, with the exception of alcohol, toxicology cannot produce "per se" proof of drug impairment. That is, the chemist can't analyze the blood or urine and come up with a number that "proves" the person was or wasn't impaired. For alcohol alone, the chemist can do that, or at least come very close to doing it.

But alcohol is a <u>special</u> drug. Chemically speaking, the alcohol molecule is very simple compared to the molecules of other drugs. Alcohol's metabolites don't impair. Scientists have had many opportunities to study alcohol's effects under carefully controlled experimental conditions. And, the scientific community has a pretty clear understanding of how alcohol works on the body and brain.

These statements generally can't be made about other drugs. Drugs are metabolized in complex ways, and sometimes the metabolites are also drugs. Some drugs can be stored in the body's tissues, so that even after the drug has cleared from the blood, it's still in the body and brain, and still causing impairment. Apart from post-mortem studies of lethal levels, there haven't been routine opportunities to correlate drug concentrations with degrees of impairment. Ethical concerns limit our ability to study illegal drugs, especially at "street" dosages. And, it is difficult to replicate in the laboratory the drug combinations, methods of ingestion and drug purities characteristic of "street" use. Even if it were possible to study individual drug concentrations and their relationships to impairment in depth, the practice of poly-drug use and the myriad of different combinations seen on the street would make that information of little practical use. And finally, many laboratories simply don't perform quantitative analyses to determine the drug concentrations, but only determine qualitatively the presence of the drugs. The reasons for avoiding quantitative analysis include the facts that it is costly, time consuming, and may be beyond the capability of the equipment available to the lab. Also, if urine is the specimen preferred by or submitted to the lab, quantitative analysis is less important, because it doesn't lend itself to clear interpretation. In short, chemistry basically cannot supply the "magic number" of impairment for drugs.

Another limitation of toxicology is that it doesn't provide evidence of the <u>time</u> at which the drug was ingested. Therefore, the chemist won't be able to provide direct evidence of the suspect's condition at the time of arrest. In some instances, it is possible that a "positive" chemical test reflects drugs that the suspect took long before being arrested, and that were metabolized and no longer causing impairment prior to his or her arrest.

#### 4. Toxicology's Roles in this Program

Exactly what are the roles that toxicology plays in this program? First and foremost, toxicology is the twelfth step in the drug influence evaluation.

A DRE doesn't complete the evaluation until they either obtain a specimen from the suspect, or formally document the fact that the suspect refused to submit to the toxicological test. And, it is important that the court be aware that toxicology is the <u>final</u> step of the evaluation. It follows the formation of the DRE's opinion; the opinion is <u>not</u> based on the results of the toxicological analysis. Similarly, the arrest, booking and charging of the suspect are not based on the toxicological analysis, and must be supported by other, solid evidence.

The DRE expects that toxicology will support or corroborate the opinion that they have formed. And, a toxicological analysis supports the opinion by confirming the <u>presence</u> of a particular drug that is consistent with the DRE's opinion. The <u>concentration</u> at which the drug is present shouldn't be an issue. That's because it isn't possible to relate concentration to "impairment" with any degree of reliability.

DREs also need to understand that sometimes the toxicological analysis will not confirm the DRE's opinion. And the DRE needs to be honest enough to admit that, when that happens, it may be because their opinion is incorrect. The drug influence evaluation isn't an exact science. Drugs affect different people in different ways. In this program, we "never say never", and we "always avoid saying always".

But sometimes, the toxicology doesn't corroborate a DRE's opinion even though the opinion is correct. The lab's instruments, personnel and analytic methods are not infallible. There are certain drugs that a particular laboratory simply can't detect at all. And, there are others that can't be "seen" unless they are present at fairly high concentrations.

To corroborate DREs' opinions, toxicology performs two kinds of analyses: screening and confirmation. Screening tests are easier, cheaper and faster than are confirmatory tests. But, confirmatory tests are more detailed and more specific than are screening tests. In very loose terms, we can say that a positive screening test means "it looks like this sort of drug is there". A positive confirmatory test means "this particular drug is definitely there".

Confirmatory tests employ methods different from those of the screening tests. The confirmatory test is designed to provide absolute proof of a drug's presence, or at least as close to absolute as science can come. And, confirmatory tests usually are required if the case goes to trial. DREs should be aware that, to cut down on costs, some labs do not conduct the confirmatory tests unless the case is going to go to trial. If this is the policy of your laboratory, you must provide the chemist with as much advanced notice of the trial date as possible, so he or she can perform the confirmatory analysis in a timely manner.

Suppose the screening test is positive, but the confirmatory test is <u>not</u> positive; what does that mean? Here again, DREs need to admit that it may mean that the drug isn't there. Some "screens" will react to substances other than psychoactive drugs. The screening tests are not absolutely indicative of drug presence; if they were, there would be no need for a confirmatory test.

But a failure to confirm a drug does <u>not</u> necessarily mean that the "screen" was inaccurate. Every analytic procedure has a "detection" threshold; that is the lowest quantity or concentration of the drug that the instrument can possibly detect. Above that is the "quantification" threshold; that is the lowest concentration that can be numerically determined by the instrument. Standard laboratory procedure calls for establishing a third level, called the "<u>cut-off</u>" level, which usually is set slightly above the "quantification" threshold. Typically, the laboratory's report for the confirmatory test will read "not detected" unless the drug is found at a concentration greater than or equal to the "cut-off" level. But in fact, the drug <u>could</u> be present, at a somewhat lower concentration.

Then why don't laboratories simply lower their "cut-off" levels, if they really want to support their DREs. The simple fact is that the laboratory needs to preserve its scientific validity. If it loses that, the testimony of its chemists will be worthless. There are definite limits to the accuracy of chemical equipment and procedures. If the cut-offs are set too low, "false positives" will result (i.e., reports of "drug found" when it isn't really there). The lab won't be able to defend its reports scientifically, so it won't be able to support the DREs at all. Still, it is important for DREs and State and agency DRE coordinators to consult with their toxicologists to try to reach agreement concerning optimum cut-offs, that do not compromise scientific integrity but at the same time provide adequate support to this program.

Fundamentally, then, toxicology's role in this program is corroborative. The observations of the arresting officer, and the observations, measurements and estimates of the DRE provide the best proof of the suspect's impairment. Toxicological analysis provides scientific corroboration that the suspect actually ingested a drug; in some cases, the analysis may also provide scientific support for the allegation that the suspect was impaired. And, toxicology also plays an important role in on-going studies to document the validity of this program, in monitoring the work of individual DREs and in assessing the progress students are making during their certification training.

#### 5. Blood or Urine: Which is Better?

Blood and urine are the primary specimens available for analyses for drugs. If we have a choice, which should we pick?

The answer is, it depends. The laws of your State, the policies and procedures of your department, the particular condition of your suspect, the equipment and procedures available to your laboratory and possibly the drug categories you believe are causing the suspect's impairment will all have a bearing on the choice. There is no single perfect or "best" specimen. It is not possible to say that blood is better or that urine is better. Each has advantages and disadvantages.

#### Some advantages of blood:

- o The presence of a drug in blood more reliably indicates <u>recent</u> use than does the presence of the drug in urine. Urine tests may produce "positive" results weeks after the drugs were used. This is much less likely to happen with blood tests. Thus a positive blood test is more contemporaneous with drug impairment.
- Some drugs are easier to detect in blood than in urine.
- o The extraction of a blood specimen usually occurs under a greater degree of supervision. When providing a urine specimen, a suspect may have an opportunity to dilute or contaminate the specimen, or even substitute some other fluid for it.
- o Quantitative analysis of urine specimens provides information of essentially no value. Quantitative analysis of drugs in blood may help to corroborate impairment.

#### Some advantages of urine:

- O Urine is usually easier to obtain. Suspects often are more willing to supply urine, and medical personnel need not be present to extract it.
- 0 Urine analysis is less expensive than blood analysis.
- o Some drugs are easier to detect in urine than in blood.
- Orug concentrations usually are higher and thus easier to detect in urine than in blood.
- Some drugs clear very quickly from the blood. Thus, even a short delay between formation of the DRE's opinion and extraction of the blood sample may impede the laboratory's ability to corroborate the DRE. But drugs usually remain detectable in the urine for longer periods of time.
- 6. What DREs Can Do To Optimize Laboratory Corroboration

DREs can help the lab help them by following a few simple reporting procedures. First, make sure that you tell the lab what drug categories you believe are present when you send in the urine or blood specimen.

Some labs want to get a copy of the complete DRE report along with the specimen; others don't. But all labs need to know the kinds of drugs that may be present, because that information can help the chemist determine if he or she needs to extend testing beyond the standard "menu" of screening procedures. And, make sure you tell the lab what drugs the suspect admitted taking, and also let them know what drugs you found in the suspect's possession.

Probably the most important advice for a DRE who wants maximum support from the lab is: talk to the chemists. Find out what kinds of specimens (blood, urine or whatever) they prefer to receive. This will vary from lab to lab, and possibly from case to case. Ask the chemists for instruction. Find out if they would like to receive a copy of your report along with the specimen. Make sure you understand what the <u>laboratory report</u> means. Establish a regular dialogue with the lab is essential for maintaining the support system this program demands.

Finally, DREs need to be aware of and sympathetic to the laboratory's limitations. DREs are not infallible, and neither are laboratories. All labs have "chemical blind spots", i.e., drugs for which no routine detection procedures or suitable instruments are available. Many labs, for example, find it very difficult to detect or confirm THC in blood specimens, or to find LSD in either urine or blood. In addition, most laboratories are not well equipped to screen for certain anti-psychotic drugs or for some of the narcotic analgesics. DREs need to know that these limitations are a fact of life. They should not be a cause for antagonism between the DRE and the lab.

#### Topics for Study

- 1. Give three important reasons for conducting drug evaluation and classification examinations in a <u>standardized</u> fashion.
- 2. What are the twelve major components of the drug recognition expert process?
- 3. How many times is <u>pulse rate</u> measured during the drug evaluation and classification examination?
- 4. Are the diameters of a <u>pupillometer's</u> dark circles indicated in centimeters, millimeters or micrometers?
- 5. What <u>formula</u> expresses the approximate statistical relationship between blood alcohol concentration and nystagmus onset angle?
- 6. Which of the seven categories of drugs ordinarily do not cause nystagmus?
- 7. How many heel-to-toe <u>steps</u> is the suspect instructed to take, in each direction, on the Walk and Turn test?
- 8. What <u>period of time</u> is the suspect required to estimate during the Romberg Balance test?
- 9. What is systolic pressure?
- 10. What is the name of the instrument used to measure blood pressure?
- 11. Name the four validated clues of the One Leg Stand test.
- 12. Name the eight validated clues of the Walk and Turn test.
- 13. Suppose you have two hypodermic needles, one is 14 gauge, the other is 20 gauge. Which needle has the smaller inside diameter?

**Drug Influence Evaluation** Evaluator DRE No Rolling Lag No. Recorder/Witness Crash: D None O Fatal C Injury @ Property DOB Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) Sex Date Examined/Time/Location Breath Results: © Refused Chemical Test □ Urine O Blood instrument# □ Refused Miranda Warning Given: O Yes O No What have you eaten today? When? Have you been drinking? How much? Time of last drink? Are you diabetic or epileptic? Time now? When did you last sleep? How long? Are you sick or injured? □ Yes □ No OYes DNo Do you take insulin? Do you have any physical defects? UYes UNo Are you under the care of a doctor or dentist? D Yes D No Are you taking any medication or drugs? UYes UNo Attitude Coordination Breath Speech Eyes: © Reddened Conjunctiva © Normal © Bloodshot © Watery Tracking: □ Equal □ Unequal O None OL Eye OR Eye Corrective Lens: □ None Pupil Size: O Equal Able to follow stimulus: O Yes O No 🗆 Glasses D Contacts, if so O Hard 🗆 Soft C Unequal (explain) □ Normal □ Droopy One Leg Stand Pulse & Time Left Eye Right Eye Vertical Nystagmus? O Yes O No Lack of Smooth Pursuit Convergence Right Eye Left Eye Max. Deviation Angle of Onset Romberg Balance Walk and Turn Test Cannot Keep Balance Starts Too Soon Approx 1" Nine 2" Nine Sways While Balancing Stops Walking Misses Heel-Ton Uses Arms to Balance Steps Off Line C Hopping Raises Arms Actual Steps Taken Puts Foot Down Internal Clock Describe Turn Cannot Do Test (Explain) Type of Footwear Estimated At 30 Sec. Pupil Size Room Light Darkness Direct Nasal Area O Right 🛆 Left Left Eye Draw lines from spot touched Oral Cavity Right Eye Hippus Rebound Dilation □ Yes Reaction To Light D No O Yes O No Blood Pressure Muscle Tone: Di Normal Di Flaccid Di Rigid Attach Photos Of Fresh Puncture Marks What Medicine or Drug Have You Been Using? How Much? Time of Use? Where Were The Drugs Used? (Location) Date/Time of Arrest Time DRE Notified Eval Start Time Time Completed Member Signature (Include Rank) Reviewed By: Opinion of Evaluator: D Stimulant □ Hullucinogen G Rule Out □ Alcohol □ PCP O Inhalant ○ Medical O Depressant O Narcotic Analgesic

□ Cannabis

|                   | DRUG INFLUENCE EVALUATION  | Page <u>2</u> of <u>2</u>  |
|-------------------|--|--|
| LOG NO.           | DRE:   | ARRESTEE:  |
| 1 YOCATION 2 WITH | NESS 3. BREATH TEST 4. NOTIFICATION /<br>NONS 6. MEDICAL PROBLEMS 7. PSYCHO<br>NN 10. SUSPECTS STATEMENTS 11. OPINIO | INTERVIEW ARRESTING OFCR. PHYSICAL 8. CLINICAL INDICATORS ON 12. TOXICOLOGY SAMPLE 13. MISC. |
| 1. LOCATION:      |  |  |
| 2. WITNESS:       |  |  |
| 3. BREATH TEST:   |  |  |
| 4. NOTIFICATION   | //INTERVIEW of ARRESTING OFFICE  | R:   |
| 5. INITIAL OBSEI  | RVATIONS:  |  |
| 6. MEDICAL PRO    | BLEMS:   |  |
| 7. РЅУСНОРНУЅ     | ICAL TESTS:  |  |
| 8. CLINICAL INI   | DICATORS:  |  |
| 9. SIGNS of ING   | ESTION:  |  |
| 10. STATEMENT     | rs:  |  |
| 11. OPINION of    | EVALUATOR:   |  |
| 12. TOXICOLO      | GICAL SAMPLE:  |  |
| 13. MISCELLA      | NEOUS:   |  |

### SESSION V

EYE EXAMINATIONS: NYSTAGMUS, CONVERGENCE PUPIL SIZE AND REACTION TO LIGHT

# SESSION V EYE EXAMINATIONS: NYSTAGMUS, CONVERGENCE PUPIL SIZE AND REACTION TO LIGHT

Upon successfully completing this session, the participants will be able to:

- o State the purposes of various eye examinations in the drug evaluation and classification process.
- o Describe the administrative procedures for the eye examinations.
- O Describe the clues of interest in each eye examination.
- o Conduct the eye examinations and note the cues that come to light.
- o Prepare complete, clear and accurate records of the eye examinations.

In this session, you will have an opportunity to observe demonstrations of the various eye examinations of the drug evaluation and classification process. You will also have opportunities to practice administering those examinations.

The eye examinations include:

- o Horizontal Gaze Nystagmus
- o Vertical Gaze Nystagmus
- o Lack of Convergence
- o Pupil Size Estimation
- o Pupil Reaction to Light

The following summarizes the results that generally can be expected when these eye examinations are administered to persons under the influence of the various categories of drugs.

|                                 | CNS<br>Depressants      | CNS<br>Stimulants | Hallucinogens | PCP     | Narcotic<br>Analgesics    | Inhalants                  | Cannabis        |
|---------------------------------|-------------------------|-------------------|---------------|---------|---------------------------|----------------------------|-----------------|
| Horizontal<br>Gaze<br>Nystagmus | Present                 | None              | None          | Present | None                      | Present                    | None .          |
| Vertical<br>Gaze<br>Nystagmus   | Present<br>(High Dose)* | None              | None          | Present | None                      | Present<br>(High<br>Dose)* | None            |
| Lack of<br>Convergence          | Present                 | None              | None          | Present | None                      | Present                    | Present         |
| Pupil Size                      | Normal (+)              | Dilated           | Dilated       | Normal  | Constricted               | Normal                     | Dilated<br>(大大) |
| Reaction<br>to Light            | Slow                    | Slow              | Normal (++)   | Normal  | Little or<br>none visible | Slow                       | Normal          |

- \*High dose for that particular individual.
- + SOMA, Quaaludes usually dilate pupils.
- ++ Certain psychedelic amphetamines.
- Normal but may be dilated.
- ★★ Pupil size may be normal.

NOTE: The Normal Range of pupil size is 3.0 to 6.5 mm.

BEAR IN MIND that there is a great deal of difference among individual human beings and their individual reactions to drugs. The chart lists what we can expect to find when we examine suspects. But no one can guarantee that we will always find precisely these responses.

# SOME KEY TECHNICAL TERMS REGARDING THE EYES

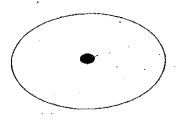
Hippus means a rhythmic pulsating of the pupils as they dilate and constrict within fixed limits.

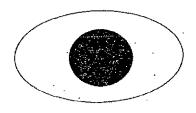
Rebound Dilation is a period of constriction followed by dilation with a change equal to or greater than 2 mm the final size determination being estimated at the end of a 15-second time period in which the light from the penlight is directed into the eye.

Accommodation Reflex means the pupils of the eyes will automatically constrict as objects move closer to them.

<u>Pupillary Light Reflex</u> means the pupils of the eyes will constrict and dilate depending on changes in lighting.

Miosis means an abnormally small pupil, i.e., a pupil constricted below 3.0 mm in diameter.





Mydriasis means an abnormally large or dilated pupil, i.e., a pupil more than 6.5 mm in diameter.

Ptosis is the technical term for "droopy eyelids".



# SESSION VI

PHYSIOLOGY AND DRUGS: AN OVERVIEW

# SESSION VI PHYSIOLOGY AND DRUGS: AN OVERVIEW

Upon successfully completing this session, the participants will be able to:

- Explain in layman's terms the general concept of human physiology.
- o Explain in layman's terms the purpose and functions of major systems in the body (nervous system, circulatory system, respiratory system, etc.).
- O Explain in layman's terms how drugs work in the body.
- o Explain in general terms how the drug evaluation is used to detect signs or symptoms indicative of drug impairment.
- o Correctly answer the "topics for study" questions at the end of this Section.

#### Physiology and Drugs: An Overview

The purpose of this session is to provide a brief overview of how the human body functions in a "normal" state and thus lay a foundation for comparison when drugs are introduced into the body. At best, students will acquire a general working knowledge and will by no means become a qualified medical specialist.

The Drug Recognition Expert can be compared to the operator of an evidential chemical test device...while it is beneficial to understand the general principles involved in the operation of the device, it is not necessary for each operator to be able to explain every detail of its operation. Rather, if the operator follows the operational instructions the device will produce accurate and reliable results. The same is true of the drug evaluation and classification procedure...if each DRE conducts the evaluation as instructed, and accurately records the test results and other observations, then the totality of information gathered during the evaluation will enable the DRE to predict the cause of impairment with a high degree of accuracy. The DRE's opinions of the cause of impairment will be limited to the seven categories of drugs, or some combination thereof, and/or a known or unknown medical or other condition that may produce similar signs or symptoms. It is not necessary to become a medical specialist or technician in human physiology. However, a general working knowledge of how the body functions is very helpful.

Physiology is the branch of biology dealing with the functions and vital processes of living organisms or their parts and organs. For purposes of this course, physiology is the study of living organisms and their parts. In this session, we will focus on the chief functions of the organ systems. This approach should provide a general overview of the intricate workings of the body and its larger parts.

#### A. Body Systems

Our simple concept of human physiology focus on ten major systems of the body. We can help remember their names by using the somewhat gruesome, but easy to recall phrase "MURDERS, INC.". Each of those letters stands for the name of a body system:

M is for the Muscular System

U is for the Urinary System

R (the 1st R) is for the Respiratory System

D is for the Digestive System

E is for the Endocrine System

R (the 2nd R) is for the Reproductive System

S is for the Skeletal System

I is for the Integumentary System N is for the Nervous System C is for the Circulatory System

Webster's New World Dictionary, Second College Edition, 1980.

The last two (Nervous and Circulatory) are the most important systems to a DRE, but several of the others also come at least indirectly into play when we conduct a drug influence evaluation. Each of the ten systems is briefly discussed below.

<u>Muscular System</u>: The body has three kinds of muscles: (1) the <u>heart</u>; (2) the <u>smooth</u> muscles (which control involuntary movements); and (3) the <u>striated</u> muscles (which control voluntary movements). The brain controls the operation of all these muscles through the nervous system.

<u>Urinary System</u>: The urinary apparatus consists of two kidneys connected by long tubes (ureters) to a storage device, the bladder, plus a third tube, the urethra, which leads from the bladder to the outside. Many of the waste products are filtered out of the blood as it passes through the kidneys and these wastes are then removed from the body in the urine.

Since drugs are removed from the blood in the kidneys and passed out of the body in the urine, the urinary system plays a key role in producing evidence of drug use.

Respiratory System: The chief organs of the respiratory system are the diaphragm and the lungs. The diaphragm is a muscular sheet that separates the thoracic cavity from the abdominal cavity, and draws fresh air into the lungs and forces used air out. The transfer of oxygen from the air to the blood and of carbon dioxide from the blood to the atmosphere occurs in the lungs. Oxygen must be supplied to all the body cells, and carbon dioxide must be removed from them in order for life to exist. The voice and, therefore all verbal communication is largely the responsibility of the respiratory system. The respiratory system forces air through the voice box, which in turn allows for speech to be accomplished.

<u>Digestive System</u>: The digestive system consists chiefly of the tongue and teeth, esophagus (food tube), stomach, intestines, liver and pancreas. The digestive system is responsible for reducing large food particles to a size and chemical nature that can be absorbed (taken from the digestive system into the blood) and thereby utilized by the body cells for energy, growth and tissue repair.

The digestive system plays a key role in introducing drugs that are swallowed (pills, alcohol, etc.) into the blood. It also plays a role in determining onset of effects, depending upon the contents of the stomach and the type(s) of drug involved.

Endocrine System: The endocrine system consists of the thyroid, parathyroid, pituitary, and adrenal glands, plus portions of the pancreas, testes, and ovaries, in conjunction with certain other hormone producing tissues. The endocrine system produces powerful chemical substances, called hormones, that exert great influence on the growth and development of the individual, and aid the nervous system in the regulation of numerous body processes. The hormones released by the endocrine system travel through the bloodstream, and reach other tissues and organs that they help to control.

Reproductive System: The functions of the reproductive system fall into two categories: cell producing (cytogenic) and hormone producing (endocrinic). We are primarily concerned with hormone production since the hormones produced by the reproductive system aid the nervous system in its regulatory role.

<u>Skeletal System</u>: The skeletal system consists of bones, cartilage and the ligaments that hold bones together. The skeletal system gives the body support and protection, permits movement, provides for muscle attachment, forms blood cells, stores minerals, and removes certain poisons from the blood.

While the drug evaluation does not directly examine the skeletal system, we must be aware that injuries or other conditions can affect performance of psychomotor tests.

<u>Integumentary System</u>: The integumentary systems consists of the skin and its accessory structure, hair and nails. The skin is well supplied with blood vessels, nerves, sweat and oil glands. The chief functions of the skin include protection of the body, helping to maintain a constant body temperature and water content, excretion of wastes and perception of changes in the environment (sensation).

The skin can provide several clues during the drug evaluation. For example, pale or flushed appearance, skin temperature, presence or absence of sweat, lack of sensation, etc.

<u>Nervous System</u>: The nervous system consists of the brain, spinal cord, and nerves, each of which is made up of nerve cells (neurons) and supporting tissues. The nervous system keeps the body apprised of changes in the environment by enabling sight, hearing, smell, taste and through sensations of temperature, touch, pressure and pain. The nervous system also enables reasoning, memory and emotions.

It sends impulses that cause muscles to contract and glands to secrete, and it works with all body systems to integrate all physiological processes so that normal functions can be maintained. Much of the activity of the nervous system is reflex in character; that is, it is carried out below the level of consciousness.

<u>Circulatory System</u>: The circulatory system consists of the heart, blood vessels and blood. The heart pumps blood throughout the body, transporting food, water, hormones, antibodies, oxygen, carbon dioxide, and many other substances to or from the body cells as required. Body temperature regulation is a partial responsibility of the circulatory system, since warm blood is constantly moved throughout the body.

The circulatory system plays a key role in transporting drugs to the brain, where most of the drugs' effects are exerted. The circulatory system also transports the drugs to the liver and other organs, where the drugs are metabolized.

# B. The Concept of Homeostasis

Homeostasis: The internal environment of the body consists of those fluids that bathe the body cells (intercellular or tissue fluid, blood and lymph). Many years ago it was discovered that although oxygen, foods, water and other substances are constantly leaving the body fluids to enter cells, and carbon dioxide and other wastes are constantly leaving cells and entering these fluids, the chemical composition of the fluids remains within remarkably narrow limits. This phenomenon was given the name "homeostasis".

By definition, homeostasis is the dynamic balance or steady state involving levels of salts, water, sugars and other materials in the body fluids. Homeostasis is a dynamic, rather than a static, or stationary equilibrium because the composition of body fluids is in a state of flux. Within limits, no matter what we eat, how much or how little we exercise, or what daily stresses and strains the body is subjected to, it retains homeostatic equilibrium of the body fluids. The rhythm of the heart and that of breathing, the constancy of body temperature, and the steady level of blood pressure under specific circumstances or conditions are all manifestations of homeostatic mechanisms at work within the body.

Every organ system plays some role in the maintenance of homeostasis. The circulatory system keeps the body fluids well mixed; the respiratory system constantly brings in oxygen and eliminates carbon dioxide; the digestive system takes in food and water and eliminates solid wastes; the skin and kidneys eliminate watery wastes; the skeletal system forms blood cells; the nervous system integrates the functioning of the other systems; and so on.

When drugs are introduced into the body the resultant interactions can cause the body to speed up, to slow down, or to become confused. During the drug evaluation we examine bodily functions and attempt to determine the cause of the impairment that is observed.

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# C. A Simple View of the Heart and the Circulatory System

You have often heard that the heart is a <u>pump</u>, and that it works in pretty much the same way as an old fashioned, hand operated pump used to draw water from a well. That remains an accurate picture for our purposes.

The heart, of course, pumps blood. The heart has chambers that fill with blood. Then, the heart constricts strongly in response to signals received along the Autonomic Motor Nerves. That constriction sends the blood surging out of the heart. The blood surges out into a group of strong, elastic "tubes" called arteries. The arteries carry the blood away from the heart. The arteries divide into smaller and smaller branches, and finally into a network of tiny blood vessels called capillaries, which pervade the body's tissues and organs.

After the heart completes its strong contraction, it relaxes and begins to expand again. This expansion is also in response to signals received along Autonomic Motor Nerves. As the heart's chambers expand, blood pours into them. This returning blood is carried by another network of "tubes" called veins. The veins collect the blood seeping back from the tissues and organs, and carry it back to the heart.

There are two separate circulation systems: 1) the systemic system involves the whole body and is driven by the left side of the heart. 2) the pulmonary system deals with the passage of blood through the lungs and is driven by the right side of the heart. The heart acts as two pumps. The left side pumps blood through the aorta and arteries to the tissues. The right side pumps blood through the pulmonary artery to the lungs and returns it to the left side of the heart via the pulmonary vein.

One very special artery is connected to the right side of the heart. This is the Pulmonary Artery. This is the artery that the heart uses to send blood to the <u>lungs</u>. The blood that surges into the Pulmonary Artery has little or no oxygen in it. But when the blood reaches the lungs it picks up a fresh supply of oxygen. The newly oxygenated blood then returns to the left side of the heart, via the four Pulmonary Veins. On the next contraction of the heart, the newly oxygenated blood is sent surging into the network of arteries that connect to the left side of the heart; through those arteries the blood is carried to all other organs and tissues.

The blood deposits its oxygen in the organs and tissues and then seeps back from those organs and tissues through a network of veins that connect to the right side of the heart. On the next contraction, this oxygen-depleted blood is sent surging into the Pulmonary Artery and over to the lungs, and the process continues.

Every time the heart contracts, blood rich in oxygen rushes out of the left side of the heart, into a network of arteries. At the same time, blood depleted of oxygen surges out of the right side of the heart, through the one special artery called the Pulmonary Artery. Every time the heart expands, blood that has just received a fresh supply of oxygen from the lungs pours back into the left side of the heart via the Pulmonary Veins. At the same time, blood that has given up its oxygen to the tissues and organs pours back into the right side via the many other veins.

The special nature of the Pulmonary Artery is now clear: it is the only artery that carries blood depleted of oxygen. All other arteries connect to the left side of the heart, and carry blood rich in oxygen. By the same token, the Pulmonary Veins are special, too. They are the only veins that carry oxygenated blood.

The normal heart beats regularly, and keeps on beating, and beating, and beating...never resting for more than a small fraction of a second. The rate of heartbeat, or heart rate, is the number of beats per minute and is regulated by the Autonomic Motor Nerves. Sympathetic Nerve fibers insure that the heart beats fast enough to maintain circulation during any activity. Parasympathetic Nerve fibers send signals to slow the heart. This coordination of nerve signals insures that the heart beats neither too fast nor too slowly. And the coordination works, unless something...such as drugs...interferes with the signals.

In the DRE program, heart rate is measured by taking a subject's pulse. Some people may exhibit an irregular or arrhythmic heart beat, i.e., where the interval between pulses varies. The normal range of pulse rate for the DRE program is 60-90 beats per minute.

The force exerted by the blood circulating in the arteries is called blood pressure.

There are two components systolic pressure, and diastolic pressure. Systolic pressure occurs when the heart contracts and the maximum force is exerted on the arteries by the blood. Diastolic pressure occurs when the heart relaxes and the minimum force is exerted on the arteries by the blood. In the DRE program, the normal range for blood pressure is 120-140 systolic and 70-90 diastolic.

Additional information on pulse and blood pressure is available in Session VII - Vital Signs.

# D. A Simplified Concept of the Nervous System

The Nervous System is one of the body's major <u>control</u> mechanisms. The other major control mechanism is the endocrine system. The endocrine system uses "chemical messengers", called hormones, to control the various tissues and organs. The Nervous System uses a combination of electrical and chemical "messengers" to transmit its signals.

Nerves are sometimes depicted as <u>wires</u>, similar to telephone or telegraph wires, that carry electric signals from the brain to the muscles and from the eyes, ears, etc. back to the brain. That is not a very accurate representation, and it is not suitable for our purposes.

A better model is one that imagines that a nerve consists of a series of <u>broken wire segments</u>, where the segments are separated by short spaces, or gaps. In this model, each segment of "wire" is a nerve cell, also known as a **neuron**. The space between two cells is called a **synapse**, or synaptic gap.



We can imagine a message running along a "wire segment" in much the same manner that electrical signals travel along telephone lines. When the message reaches the end of a segment, it must somehow "jump across the

synapse" to reach the next piece of wire. Nerves use chemical messengers to jump the gap. When the signal reaches the end of the neuron, it triggers the release of a special chemical called a neurotransmitter. The neurotransmitter flows across the synapse and contacts the next neuron, where it is received. The reception of the chemical triggers an "electrical impulse" in that neuron, causing the signal to travel along the neuron until it reaches the next gap, where the release of the chemical is once again triggered. In this way, the signal moves along the entire nerve, in a series of electrical impulses and chemical transfers.

Neurons, or nerve cells, contain a number of different neurotransmitters, or chemical messengers. Each neurotransmitter carries a particular message.

The neuron has three main parts:

- o The cell body.
- The Axon is the part of the neuron that sends out the neurotransmitter.

  The Axon is the "pitcher" of neurotransmitter.
- o The Dendrite is the part that receives the neurotransmitter. The Dendrite is the "catcher" of neurotransmitter.

The gap between two neurons is called synapse or synaptic gap. The neurotransmitters carry a message across the synaptic gap from the axon of one cell to the dendrite of the next cell.

### Types of Nerves

Some nerves carry messages away from the brain, for example, commands from the brain to the heart, telling it to beat faster or more slowly; or, commands from the brain to the eyes, telling them to dilate or constrict the pupils; or, from the brain to the muscles in the arm, telling them to raise or lower the hand; or, many other commands of this type. These nerves that carry messages away from the brain are called the Motor Nerves, or the Efferent Nerves. If something interferes with the messages that the brain sends out along the Motor Nerves, the brain's control over the body's organs and muscles will be disturbed. As a result, the heart might beat faster than it should, the pupils might constrict when they shouldn't, the arms and legs might not move exactly as the brain intends.

Other nerves carry messages to the brain, for example, signals from the eyes, the ears, the body's pain sensors, the inner ear, etc. The brain decodes the signals that come to it along these nerves, and forms "pictures" of the outside world and of the body's internal condition. These nerves that carry messages to the brain are called the Sensory Nerves, or the Afferent Nerves. If something interferes with the messages that the brain receives through the Sensory Nerves, the brain's perception of what is happening to the body and to the outside world will be distorted. As a result, the brain might "smell an odor" when it ought to hear a sound, or might "see an object" that doesn't really exist, or might feel no pain despite a severe injury.

This, very basically, is how drugs work: they interfere with the messages that the brain transmits along the Motor (Efferent) Nerves, and they interfere with the messages that the brain receives along the Sensory (Afferent) Nerves.

The Motor Nerves divide into two subsystems:

(1) One subsystem is made up of the Voluntary Motor Nerves; they carry messages from the brain to the <u>striated</u> muscles, i.e., the muscles that we consciously control. The Voluntary Motor nerves carry the commands that cause us to move our arms and legs, smile or frown, turn our heads, etc.

(2) The other subsystem is made up of the Autonomic Motor Nerves; they carry messages from the brain to the <u>heart</u> and to the <u>smooth</u> muscles. The Autonomic Motor Nerves carry the commands that cause our pupils to dilate, our lungs to inhale and exhale, our heartbeat to slow, etc. In other words, the Autonomic Motor Nerves send commands to the muscles and organs we do not consciously control.

The Autonomic Motor Nerves are further divided into two groups, the Sympathetic Nerves and the Parasympathetic Nerves. The Sympathetic Nerves command the body's automatic responses in reaction to fear, stress, excitement, etc.

Through the Sympathetic Nerves, the brain sends "wake up calls" and "fire alarms" to the heart and the smooth muscles. The Sympathetic Nerves carry the messages that cause the pupils to dilate; the blood pressure and pulse rate to rise; the sweat glands to activate; the hair to stand on end; the blood vessels of the skin to constrict; etc. In short, the messages transmitted along the Sympathetic Nerves excite or stimulate the body. The Sympathetic Nerves act as the body's "gas pedal".

The Parasympathetic Nerves have exactly the opposite function. They carry messages that produce a relaxed state in the body, and that promote tranquil activities. The brain sends its "at ease" and "all clear" messages along the Parasympathetic Nerves. Those messages cause the pupils to constrict; heartbeat to slow; blood pressure to drop; peripheral blood vessels to dilate; digestion to proceed; etc. The Parasympathetic Nerves act as the body's "brake pedal".

Naturally, neurotransmitter, or chemical messengers, are involved in carrying signals along both the Sympathetic and Parasympathetic nerves. Some drugs mimic the action of certain neurotransmitter. When taken into the body, these drugs come into contact with dendrites (receptor ports) of nerves and cause messages to be transmitted along Sympathetic or Parasympathetic Nerves.

Drugs that mimic neurotransmitter that are associated with Sympathetic Nerves are called **sympathomimetic** drugs. They artificially cause the excitement and stimulation associated with the brain's natural "wake up calls". CNS Stimulants and Hallucinogens are considered to be sympathomimetic drugs.

Cannabis and PCP also have sympathomimetic characteristics, to some degree.

Drugs that mimic neurotransmitter associated with the Parasympathetic Nerves are called **parasympathomimetic**. They induce the transmission of messages that cause lowered blood pressure, drowsiness, muscle relaxation, etc; Narcotic Analgesics and CNS Depressants are considered to be parasympathomimetic.

Although there are more than 100 chemicals in the brain, only about two dozen probably are true neurotransmitters. The primary neurotransmitters in the brain are norepinephrine (noradrenaline), acetylcholine, dopamine, serotonin, gamma amino butric acid (GABA), endorphins and enkephalins. Norepinephrine, also called noradrenaline, produces effects in the body that are similar to the effects produced by adrenaline. Acetylcholine plays a role in muscle control and effects neuromuscular or myoneural junctions. Dopamine plays a role in mood control and is used in treating Parkinson's Disease. Serotonin is a vasoconstrictor, thought to be involved in sleep, wakefulness, and sensory perception. GABA inhibits various neurotransmitters and also causes a release of growth hormones. Endorphins and enkephalins are the bodies natural pain relievers.

#### E. How Drugs Work

In simple terms, drugs work by artificially introducing into the body chemicals that mimic the body's natural hormones and neurotransmitters. Therapeutic doses of legitimate prescriptive drugs and over the counter medications are designed to produce carefully controlled simulations of natural hormones or neurotransmitters, to make up for a deficiency in the body's natural supply. A common example of this is the first-thing-in-the-morning cup of coffee that is a ritual for many people. When the alarm clock forces us to awake, against our will, our Parasympathetic Nerves are operating in high gear and we are flooded with hormones that induce sleep and relaxation. We use the stimulant caffeine to overcome the body's natural chemicals, so that we can get started on the day's work. An entirely different, but also common example, occurs when we find ourselves worried and anxious at the end of the day, because of problems on the job, at home or wherever. This is stress, and our brains react to stress by activating the Sympathetic Nerves: we're too "keyed up" to sleep. That is when many people reach for the glass of wine, or the Xanax or Valium tablet, to overcome the body's natural stimulation.

But we pay a price when we do these things. When we introduce these chemicals, we disrupt the body's natural balance. The body is going to react, because it must preserve homeostasis. And the body's reaction will try to alter its own supply of natural chemicals to accommodate the ones we have introduced.

One way in which the body may react to the presence of a drug is by producing hormones and neurotransmitters that tend to counteract the effects of the drug. For example, if a person snorts cocaine, their brain might react to the resulting stimulation by sending commands along the Parasympathetic Nerves to depress bodily functions, and by commanding the endocrine system to release hormones that also will produce depression. This can lead to an interesting situation: the drug may metabolize, i.e., react with oxygen and other chemicals in the body, and dissipate so that its effects no longer are present; but in the mean time, the brain has caused the body to be flooded with natural hormones and neurotransmitters designed to counteract the drug, and they may still be exerting their effects.

We call this situation the downside of a drug. When a person is experiencing the downside, they are no longer under the active influence of the drug, because the drug has largely dissipated from the body. Instead, the person is exhibiting the effects of the natural chemicals that the body produced to try to offset the effects of the drug. DREs do not classify a subject as being "under the influence" of the downside of a drug.

Cocaine, for example, metabolizes fairly quickly, so that its effects may disappear in a relatively short time. But the hormones and neurotransmitters that the brain dispatched to counteract the cocaine will probably still be around, and will still be trying to depress the body's systems. As a result, when the cocaine wears off, the user may look and act very much like someone who is under the influence of a CNS Depressant, just the opposite of how he or she looked and acted when under the influence of the cocaine.

It is not uncommon for a DRE to encounter someone on the downside of a drug. When the arresting officer apprehends a suspect, the effects of a particular drug might be very evident. But by the time the DRE is summoned and arrives on scene, the effects may have worn off. As a DRE, you are called upon to give your best professional opinion concerning what is affecting the suspect at the time of your examination. You must never attempt to infer or estimate what the suspect's state or nature of impairment may have been at some time prior to your contact with them.

There is another way in which the body may react to drugs, especially when the drug is routinely used over a period of time. Because the drug is artificially simulating the actions of certain hormones and neurotransmitters, the body may come to rely on the drug to supply those actions, and may simply cease producing those natural chemicals. We call this phenomenon Negative Feedback. It simply means that the brain accommodates the routine presence of a drug by turning off the supply of natural chemicals that correspond to the drug. Evidence suggests that this Negative Feedback clearly occurs in users of heroin and cocaine, to cite just two examples. The bodies of cocaine and heroin users apparently cease producing the hormones and neurotransmitters needed for proper pain relief, stress reduction, mental stability and motivation. Very quickly, the user simply can't cope without the drug. A similar effect is physical dependence, or addiction to the drug; because the natural chemicals are no longer available, the body needs the drug to provide the functions those natural chemicals used to perform.

Another way in which the body may compensate is by developing increased tolerance to the drug, meaning that the same dose of the drug will produce diminishing effects. To express this another way, a steadily stronger dose of the drug will be needed to produce the same effects. Habitual users of drugs may develop tolerance to the drug and as a result they may exhibit relatively little evidence of impairment on the psychophysical test. Even tolerant drug users, when impaired, usually exhibit clinical evidence.

The concept of metabolism is important for an understanding of how drugs work in the body. Metabolism is defined as the combined chemical and physical processes that take place in the body involving the distribution of nutrients and resulting in growth, energy production, the elimination of wastes, and other body functions.

There are two basic phases of metabolism: <u>anabolism</u>, the constructive phase, during which small molecules resulting from the digestive process are built up into complex compounds that form the tissues and organs of the body; and <u>catabolism</u>, the destructive phase, during which larger molecules are broken down into simpler substances with the release of energy. A metabolite is a product of metabolism, the chemical changes that take place when the drug reacts with enzymes and other substances in the body. The body uses chemical reactions to break down the drug and ultimately to eliminate it. Sometimes, metabolites of the original drug are themselves drugs and cause impairment. An example, the body quickly metabolizes heroin into morphine, and it is the morphine that actually produces the effects the heroin user experiences.

# F. Medical Conditions Which Sometimes Mimic Drug Impairment

There are numerous medical conditions and injuries that may cause their victims to appear to be under the influence of alcohol or other drugs. Some of the more common of these are listed and discussed on the next page.

Head Trauma - A severe blow or bump to the head may injure the brain and create disorientation, confusion, lack of coordination, slowed responses, speech impairment and other gross indicators of alcohol or drug influence. Because the injury usually affects one side of the brain more than the other, disparities usually will be evident in the subject's eyes. Look at the pupils, and observe whether they are obviously different in size. Check the eyes' tracking ability, and see whether they are dissimilar, e.g., one eye moving smoothly while the other jerks noticeably. Check the eyelids to see if one droops while the other appears normal.

Stroke - A stroke will usually produce many of the same effects and indicators associated with head trauma. Stroke victims often will have pupils that are markedly different in size. One pupil may remain fixed and exhibit no visible reaction to light, while the other reacts normally.

Diabetes - A diabetic is most likely to be confused with a person impaired by alcohol or drugs when he or she has taken too much insulin, so that the blood sugar level becomes dangerously low. This condition is called insulin shock. A diabetic in insulin shock may appear very confused, may be non-responsive, sweat profusely and exhibit elevated pulse rate and blood pressure. If you suspect that you may be dealing with insulin shock, give the subject a glass of orange juice, a bite of candy or simply a spoonful of sugar; that should rapidly produce a noticeable improvement in his or her condition.

Conjunctivitis - This is an inflammation of the mucous membrane that lines the inner surface of the eyelids giving a red, bloodshot appearance of the conjunctiva of the eyes. At first glance, this may appear similar to the bloodshot conditions associated with impairment by alcohol or Cannabis. This condition may occur in one eye only.

Shock - Shock victims often will appear dazed, uncoordinated and non-responsive.

Multiple Sclerosis - Victims of Multiple Sclerosis (MS) and other degenerative muscular disorders may exhibit severe incoordination, gait ataxia, tremors, slurred or garbled speech and many of the other gross indicators of intoxication. However, they will usually appear alert.

Some other medical conditions that may cause signs and symptoms similar to drug impairment include: carbon monoxide poisoning, seizures, endocrine disorders, neurological conditions, psychiatric conditions, and infections. There are also normal conditions which can affect vital signs. Some examples are: exercise, excitement, fear, anxiety and depression.

# Topics for Study

- 1. What is a neurotransmitter? What is a hormone?
- 2. What is a dendrite? What is an axon? What is a synapse?
- 3. Do arteries carry blood toward the heart or away from the heart?
- 4. What is unique about the Pulmonary Artery?
- 5. What are the two types of nerves that make up the Autonomic Nervous Subsystem?
- 6. Is cocaine sympathomimetic or parasympathomimetic? What about heroin?
- 7. Explain the concept of the "downside of a drug". Explain the concept of "Negative Feedback".
- 8. What do we call the nerves that carry messages <u>away from</u> the brain? What do we call the nerves that carry messages <u>toward</u> the brain?

# SESSION VII

**EXAMINATION OF VITAL SIGNS** 

# SESSION VII EXAMINATION OF VITAL SIGNS

Upon successfully completing this session, the participants will be able to:

- o Explain the purposes of the various vital signs examinations in the Drug Evaluation and Classification Process.
- o Explain the administrative procedures for these examinations.
- o Explain the cues obtained from these examinations.
- o Document the examinations of vital signs accurately and completely.
- o Correctly answer the "topics for study" questions at the end of this Section.

#### A. Concepts and Procedures for Measuring Pulse Rate

#### Some important definitions:

<u>Pulse</u> is the expansion and relaxation of an artery generated by the pumping action of the heart.

Pulse rate is the number of pulsations in an artery in one minute.

An <u>artery</u> is a strong, elastic blood vessel that carries blood <u>from the heart</u> to the body tissues.

A <u>vein</u> is a blood vessel that carries blood <u>back to the heart</u> from the body tissues.

When the heart contracts, it squeezes blood out of its chambers, and sends the blood surging into the arteries. The surging blood pushes against the walls of the arteries, causing them to expand. If you know where to locate an artery (for example, in the crease of your wrist, just below the base of the thumb) and you press your finger tips onto the skin just above the artery, you will feel the artery expand each time blood surges through it. If you keep your finger tips on the artery and count the pulses that occur in one minute, you will determine your pulse rate.

The Radial Artery provides a convenient pulse point. The Radial Artery can be located in or near the natural crease of the wrist, on the side of the wrist next to the thumb. To use the Radial Artery pulse point, have the subject hold his or her arm straight out, with the palm of the hand facing down. Place the tips of your index and middle fingers into the crease of the subject's wrist, near the base of the



thumb, and exert a slight pressure. Allow the subject's hand to droop down from gravity; this will tighten the pressure on your finger tips and aid you to feel the pulse.



The <u>Brachial Artery</u> provides another useful pulse point. It can be located in the crook of the arm, halfway between the center of the arm and the side of the arm closest to the body.

The <u>Carotid Artery</u> can also provide pulse points. The Carotid Artery can be located in the neck, on either side of the Adam's apple.

#### Key points to keep in mind about measuring pulse rate:

- o <u>Don't</u> use your thumb to feel someone's pulse. There is an artery in the thumb. If you apply pressure with the thumb, the "beat" you feel may be your own pulse, and not the subject's.
- o If you use the Carotid Artery pulse point, <u>don't</u> apply pressure to both sides of the Adam's apple. Doing so can cut off the supply of blood to the brain.
- o When measuring pulse rate, count the beats for 30 seconds, then multiply by two.

#### Some technical terms associated with pulse rate:

- o <u>Tachycardia</u>: Abnormally rapid heart rate.
- o <u>Bradycardia</u>: Abnormally slow heart rate.
- o Arrhythmia: Abnormal heart rhythm.

#### B. Concepts And Procedures For Measuring Blood Pressure

All DREs need to be aware that many females have birth control implants in their upper left arm. The DRE should check for the implants, and if found, the blood pressure should be taken on the subject's right arm.

#### Some important definitions:

<u>Blood pressure</u> is the force that the circulating blood exerts on the walls of the arteries. The blood pressure changes from instant to instant, as the heart contracts and relaxes.

<u>Systolic pressure</u> is the maximum or highest blood pressure. The blood pressure reaches its systolic value when the heart contracts and sends the blood surging into the arteries.

<u>Diastolic pressure</u> is the minimum or lowest blood pressure. The blood pressure reaches its diastolic value when the heart is fully expanded.

A <u>Sphygmomanometer</u> is a device for measuring blood pressure. The major parts or components of a Sphygmomanometer include:

o the <u>compression cuff</u>, which can be wrapped securely around the arm and which contains a rubber bladder that can be inflated with air.

There are different cuffs designed for children, adults and people with extra large arms; these cuffs have different sized bladders.

- o the <u>pressure bulb</u>, which can be squeezed to inflate the rubber bladder with air.
- the <u>pressure control valve</u>, which controls the inflation or deflation of the rubber bladder. To inflate the bladder, the pressure control valve must be twisted all the way to the right (clockwise); then, the pressure bulb can be squeezed to pump air into the bladder. To deflate the bladder, the pressure control valve must be twisted to the left (counter-clockwise); the more the valve is twisted to the left, the faster the bladder will deflate.
- o the manometer, or pressure gauge, which displays the air pressure in the bladder.
- o <u>tubes</u>, connecting the pressure cuff to the manometer and to the pressure bulb.

#### Some technical terms associated with blood pressure:

- o <u>Hypertension</u>: Abnormally high blood pressure.
- o <u>Hypotension</u>: Abnormally low blood pressure.

Blood Pressure is measured in units of <u>millimeters of mercury</u>. Sometimes this is abbreviated as "mmHg", where "mm" represents "millimeters" and "Hg" is the chemical symbol for the element mercury (from "Hydrargyrum", the latin word for "mercury"). When the manometer or pressure gauge indicates that the pressure in the bladder is 120 mmHg, that means that the air in the bladder, if forced into a glass tube containing liquid mercury, would push the mercury up the tube to a height of 120 millimeters. Some Sphygmomanometers actually have pressure gauges that consist of glass tubes containing mercury, with a ruler alongside the tube marked off in millimeters. Usually, however, <u>aneroid</u> pressure gauges are used. ("Aneroid" means "without fluid".)

When you measure and record blood pressure, it is not necessary to use the symbols "mmHg". Simply record the numbers.

The principles involved in measuring blood pressure are easy to understand. When the pressure cuff is wrapped around the upper arm (e.g., around the bicep) and inflated with air, the air pressure exerts a force on the arm. When the pressure in the bladder gets high enough, the arteries in the arm will be squeezed shut, and no blood will flow through the arteries. In this respect, the pressure cuff works just like a tourniquet.

When the pressure control valve is twisted to the left, air starts to escape from the bladder and the pressure on the arm (and on the artery) starts to drop. However, as long as the air pressure on the artery remains higher than the blood pressure in the artery, the artery will remain squeezed shut and no blood will flow.

Consider this question: what will happen when the air pressure on the artery drops to the point where it just equals the blood pressure in the artery?

At that point, the heart will again be able to push the blood through the artery, so the flow of blood will resume.

But the blood pressure is constantly changing, from instant to instant. At one instant, the pressure will be at its maximum, or Systolic value. Then the blood pressure drops, and a very short time later it will reach its minimum or diastolic level. Then it climbs again, and repeats the cycle over and over.

When the air pressure in the bladder drops to the point where it equals the <u>Systolic</u> blood pressure, blood will be able to spurt through the artery each time the heart contracts. But an instant later, as the heart starts to expand and the blood pressure drops, the artery will squeeze shut again and the flow will stop.

If the air is allowed to continue to escape from the bladder, the air pressure eventually will fall to the point where it reaches the Diastolic level. At that point, the blood pressure in the artery always will be equal to or higher than the air pressure on the artery, so the artery will stay open and blood will flow steadily.

So the basic idea is simple:

To measure blood pressure, start by pumping up the bladder until the artery is squeezed completely shut and no blood flows.

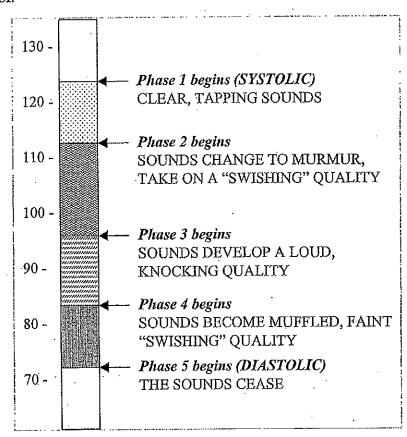
Let the air pressure drop slowly until the blood just begins to <u>spurt</u> through the artery. When that happens, the pressure shown on the gauge will be equal to the Systolic pressure.

Continue to let the air pressure drop until the blood finally flows <u>steadily</u> through the artery. The pressure showing on the gauge at that time will be the Diastolic pressure.

To determine <u>when</u> the blood starts to spurt, and when it starts to flow steadily, a stethoscope is needed.

The stethoscope should be applied to the skin, directly above the artery. For example, with the blood pressure cuff wrapped around the bicep, the stethoscope can be applied to the Brachial artery pulse point.

When no blood is flowing through the artery, you will hear nothing through the stethoscope. But when the air pressure in the cuff falls to the systolic level, you will hear the blood begin to spurt. The sound you will hear starts as a clear tapping. This is the first phase of what are called the Korotkoff Sounds, a distinct series of sounds that are heard as the air pressure in the cuff drops from the systolic to the diastolic level.



As you continue to allow the air to escape from the cuff, the spurts of blood through the artery become steadily longer and the sounds change. They become fainter, and take on a swishing quality. They pass through a "knocking" phase, and then suddenly become muffled. Eventually, when the air pressure drops to the diastolic level, the blood flows steadily and all sound ceases.

# Step-by-step procedures for measuring blood pressure

- (1) Position the cuff on the bicep so that the tubes extend down the middle of the arm.
- (2) Wrap the cuff snugly around the bicep.
- (3) Clip the manometer to the subject's sleeve, or to some other convenient location, so that you can observe the gauge easily.

- (4) Twist the pressure control valve all the way to the right.
- (5) Put the stethoscope earpieces in your ears. Make sure the earpieces are turned forward.
- (6) Apply the stethoscope to the Brachial Artery pulse point.
- (7) Rapidly inflate the bladder to a level high enough to squeeze the artery shut. Usually, a pressure of 180 will be sufficient.
- (8) Twist the pressure control valve slightly to the left to allow the air to escape from the bladder slowly (2 mmHg per second).
- (9) Keep your eyes on the pressure gauge and listen for the Korotkoff Sounds.
  - a. Record the <u>Systolic</u> pressure when the first sound (clear, tapping) is heard.
  - b. Record the Diastolic pressure when the sounds cease.

If the DRE is unable to successfully obtain a blood pressure measurement the first time, they should wait a minimum of three minutes before attempting to obtain another measurement.

## C. Concepts of Temperature Measurement

An electronic thermometer is used to orally measure temperature. The thermometer should always be covered with a clean disposable cover prior to taking the suspect's temperature.

The following summarizes the results that generally can be expected when the vital signs examinations are administered to persons under the influence of the various categories of drugs.

| 4                 | CNS<br>Depressants | CNS<br>Stimulants | Halluci-<br>nogens | PCP | Narcotic<br>Analgesics | Inhalants          | Cannabis |
|-------------------|--------------------|-------------------|--------------------|-----|------------------------|--------------------|----------|
| Pulse             | Down (*)           | Up                | Up                 | Up  | Down                   | Up                 | Up       |
| Blood<br>Pressure | Down               | Up                | Up                 | Up  | Down                   | Up/Down (**)       | Up       |
| Temperature       | Normal             | Up                | Up                 | Up  | Down                   | Up/Down/<br>Normal | Normal   |

<sup>\*</sup> Quaaludes and Etoh may elevate.

NOTE: "Normal" systolic blood pressure 120-140

"Normal" diastolic blood pressure 70-90

"Normal" pulse (adult male) 60-90

"Normal" temperature 98.6 plus or minus 1 degree, Fahrenheit

<sup>\*\*</sup> Down with Anesthetic gases, up with volatile solvents and aerosols.

#### Topics for study

- 1. Where is the Radial Artery pulse point?
- 2. Why should you never attempt to feel a subject's pulse with your thumb?
- 3. Does an artery carry blood to the heart or from the heart?
- 4. What does the symbol "Hg" represent?
- 5. What is Diastolic pressure?
- 6. When do the Korotkoff Sounds begin?
- 7. Name and describe the major components of a Sphygmomanometer.
- 8. Which of the seven categories of drugs generally will cause blood pressure to be elevated?

# SESSION VIII

DEMONSTRATIONS OF THE EVALUATION SEQUENCE

# SESSION VIII DEMONSTRATIONS OF THE EVALUATION SEQUENCE

Upon successfully completing this session, the participants will be able to:

• Describe the sequence in which examinations and other activities are performed in the Drug Evaluation and Classification Process.

In this session, you will have an opportunity to observe demonstrations of the entire Drug Evaluation and Classification process. Your instructors will conduct some of these demonstrations "live", in the classroom. There will also be a video taped demonstration. The demonstrations will illustrate the standardized and systematic process used for the Drug Evaluation and Classification Program.

Your instructors will make the video tape available for reviewing, after normal class hours. You should make an effort to view the tape at least a second time before the completion of this course to ensure you are able to conduct an evaluation using the standardized and systematic process.

# SESSION IX

CENTRAL NERVOUS SYSTEM DEPRESSANTS

# SESSION IX CENTRAL NERVOUS SYSTEM DEPRESSANTS

Upon successfully completing this session, the participants will be able to:

- o Explain a brief history of the CNS Depressant category of drugs.
- o Identify common drug names and terms associated with this category.
- o Identify common methods of administration for this category.
- o Describe the symptoms, observable signs and other effects associated with this category.
- O Describe the typical time parameters, i.e., onset and duration of effects, associated with this category.
- o State the clues that are likely to emerge when the Drug Evaluation and Classification process is conducted for a person under the influence of this category of drugs.
- o Correctly answer the "topics for study" questions at the end of this Section.

#### A. Overview of CNS Depressants

Central Nervous System Depressants slow down the operations of the brain. They first affect those areas of the brain that control a person's conscious, voluntary actions. As dosage increases, depressants begin to affect the parts of the brain controlling the body's automatic, unconscious processes, such as heartbeat and respiration.

Alcohol is the model for the CNS Depressant category of drugs. Alcohol is the most familiar, and most widely abused, depressant. With some exceptions, all depressants affect people in much the same way as does alcohol.

Some major subcategories of CNS Depressants other than alcohol include:

- o Barbiturates (Derivatives of Barbiturate Acid)
- o Non-Barbiturates
  (Synthetic compounds with a variety of chemical structures)
- o Anti-Anxiety Tranquilizers (Frequently prescribed and frequently abused)
- o Anti-Depressants
  (It may seem to be a contradiction in terms to call a subcategory of Depressants the Anti-Depressants; but in this case, we simply mean that these drugs are prescribed to combat <u>psychological</u> depression. For that reason, the Anti-Depressants are sometimes known as the "mood elevators".)
- o Anti-Psychotic Tranquilizers (Also known as the "major tranquilizers", to distinguish them from the Anti-Anxiety tranquilizers, or "Minor Tranquilizers".)
- o Combinations of the other five subcategories.

Some examples of specific drugs included in each subcategory are given in the table on pages IX-2 and IX-3.

Most users of CNS Depressants ingest these drugs orally. However, although the practice is not common, some Barbiturate abusers inject their drugs intravenously. The injection paraphernalia used by Barbiturate abusers are similar to those used by Heroin addicts, although a larger hypodermic needle is used, because the Barbiturate solution is thicker than the Heroin solution. The injection sites on the skin of a Barbiturate abuser exhibit large swellings, and may develop ulcerations resembling cigarette burns.

# EXAMPLES OF CNS DEPRESSANTS

|   |   | ANTI-ANXIETY                             |
|---|---|--|
| BARBITURATES  | NON-BARBITURATES                        | TRANQUILIZERS                            |
| Secobarbital  | Chloral Hydrate                         | Chlordiazepoxide                         |
| Common trade name: "Seconal"                              | Common trade names: "Felsule"; "Noctec" | Trade name: "Librium"                    |
| Common street names:                                      | Common street names:                    | <u>Diazepam</u>                          |
| "reds"; "red devils"; "RDs";<br>"fender benders"; "F-40s" | "Mickey Finn"; "Knock-out<br>Drops"     | Trade name: "Valium"                     |
| Tolidor bolitable , 1 100                                 |   | Clonazepam                               |
| Pentobarbital   | <u>Glutethimide</u>                     | Trade name: "Klonopin"                   |
| Common trade name:  | Trade name: "Doriden"                   |  |
| "Nembutal"  | •                                       | <u>Flurazepam</u>                        |
| Common street names:                                      | <u>Methyprylon</u>                      | Trade name: "Dalmane"                    |
| "yellows"; "yellow jackets"                               | Trade name: "Noludar"                   |  |
|   |   | Alprazolam                               |
| <u>Amobarbital</u>  | <u>Methaqualone</u>                     | Trade name: "Xanax"                      |
| Common trade name:  | Trade names: "Parest";                  |  |
| "Amytal"  | "Quaalude"; "Sopor";                    | Triazolam                                |
| Common street names:                                      | "Optimil"; "Mandrax";                   | Trade name: "Halcion"                    |
| "blues"; "blue heavens"                                   | Street name:                            | <b>T</b>                                 |
|   | "Ludes"                                 | <u>Lorazepam</u><br>Trade name: "Ativan" |
| <u>Amosecobarbital</u>                                    | B(1 1 11                                | Trade name: Auvan                        |
| A combination of  | Ethehlorvynol                           | <u>Estazolam</u>                         |
| amobarbital and   | Trade name: "Placidyl"                  | Trade name: "ProSom"                     |
| secobarbital  | Ethinamate                              | Trade hame. 11000m                       |
| Common trade name:  | Trade name: "Valmid"                    | Temazepam                                |
| "Tuinal" Common street names:                             | Trace name. Tamia                       | Trade name: "Restoril"                   |
| "rainbows"; "Christmas                                    | Paraldehyde                             |  |
| trees"  | Trade names: "Paral"                    | <u>Oxazepam</u>                          |
| 61665   | 11440 344200, 2 1244                    | Trade name: "Serax"                      |
| Phenobarbital   | Dip <u>henhydramine</u>                 | •  |
| Many trade names  | Hydrochloride                           | Flunitrazepam                            |
| Common street name:                                       | Trade names: "Benadryl";                | Trade Name: "Rohypnopl"                  |
| "pink ladies"   | "Sominex" .                             | Street names: "Roofies" or "Roches"      |
|   | <u>Carisoprodl</u>                      |  |
|   | Trade name: "Soma"                      | •  |
| ·   | Gamma-hydroxybutyrate                   |  |
|   | Street name GHB,                        |  |
| •   | Liquid X                                |  |
|   | Diphenylhydantoin Sodium                |  |
| ·   | Trade name: "Dilantin"                  |  |

# EXAMPLES OF CNS DEPRESSANTS (CONTINUED)

| ,                            | ANTI-PSYCHOTIC           |                          |
|------------------------------|--------------------------|--------------------------|
| ANTI-DEPRESSANTS             | TRANQUILIZERS            | COMBINATIONS             |
| Phenelzine Sulfate           | <u>Lithium Carbonate</u> | Chlordiazepoxide and     |
| Trade name: "Nardil"         | •                        | <u>Amitriptyline</u>     |
| •                            | Lithium Citrate          | Trade name: "Limbitrol"  |
| <u>Amitriptyline</u>         |                          | •                        |
| <u>Hydrochloride</u>         | <u>Droperidol</u>        | Perphenazine and         |
| Trade names: "Elavil";       | Trade names: "Inapsine"; | <u>Amipripttyline</u>    |
| "Endep"                      | "Innovar"                | <u>Hydrochloride</u>     |
|                              | •                        | Trade name: "Triavil"    |
| <u>Desipramine</u>           | <u>Haloperidol</u>       |                          |
| <u>Hydrochloride</u>         | Trade name: "Haldol"     | <u>Chlordiazepoxide</u>  |
| Trade names:                 | •                        | <u>Hydrochloride and</u> |
| "Norpramin";                 | <u>Chlorpromazine</u>    | <u>Clidinium Bromide</u> |
| "Pertofrane"                 | Trade name: "Thorazine"  | Trade name: "Librax"     |
|                              |                          |                          |
| <u>Doxepin Hydrochloride</u> | •                        |                          |
| Trade names: "Adapin";       | •                        |                          |
| "Sinequan"                   |                          |                          |
|                              |                          |                          |
| <u>Fluoxetine</u>            |                          | •                        |
| Trade name: "Prozac"         |                          |                          |
|                              |                          |                          |
| Impramine                    |                          |                          |

Trade name: "Tofranil"

# B. Possible Effects of CNS Depressants

Once again, alcohol is the model here. Other depressants generally affect people in much the same way as does alcohol.

- o reduced social inhibitions
- o impaired ability to divide attention
- o slowed reflexes
- o impaired judgment and concentration
- o impaired vision and coordination
- o slurred, mumbled or incoherent speech
- a wide variety of emotional effects, such as euphoria, depression, suicidal tendencies, laughing or crying for no apparent reason, etc.

In general, a person under the influence of a CNS Depressant will look and act as though they were drunk on alcohol.

# C. The Onset and Duration of Depressants' Effects

Some CNS Depressants act very quickly, and begin to affect their users within seconds. Others act more slowly, sometimes taking one-half hour or more to begin to exert an influence. The quick acting depressants also tend to be relatively short acting: in some cases their effects wear off in a matter of minutes. The slow acting depressants, on the other hand, tend to produce longer lasting effects.

Depressants fall into four groups, based on how quickly they take effect and how long their effects last.

The <u>Ultra Short</u> Depressants take effect in a matter of seconds, but their effects dissipate in just a few minutes. They are used medically to provide a momentary sedation of a patient, for example to reduce a psychiatrist's patient's anxieties and inhibitions at the beginning of a counseling session. An example of an Ultra Short Depressant is Thiopental Sodium, sometimes call "truth serum". Ultra Short Depressants rarely are the drugs of choice for abusers, because their effects don't last long enough to satisfy most abusers.

The <u>Short</u> Depressants are more attractive to drug abusers. They generally take effect within 10-15 minutes, and their effects last approximately four hours. Medical applications of the Short Depressants include treatment of insomnia and sedation of patients prior to surgery. An example of a short depressant is Secobarbital.



Intermediate Depressants may require up to 30 minutes to take effect, but their effects typically last 6-8 hours. They are popular among drug abusers who desire a longer-lasting state of intoxication. The medical applications of Intermediate Depressants are similar to those of Short Depressants. Amobarbital is an example of an Intermediate Depressant.

The drug Amosecobarbital (trade name "Tuinal", i.e., <u>two</u>-in-all) straddles the border between short and intermediate depressants. It combines Amobarbital (an intermediate) with Secobarbital (a short). The result is a fairly fast acting drug with fairly prolonged effects.

The <u>Long</u> Depressants generally are not the preferred drugs of abusers. This is because they take too long to start producing effects (typically, about one hour). However, their effects usually last 8-14 hours. Long Depressants are used medically to control epilepsy and other conditions that can cause convulsions. Barbital is an example of a Long Depressant.

### D. Signs and Symptoms of Depressant Overdose

Overdoses of CNS Depressants produce effects that are essentially identical to those of alcohol overdoses:

- o the person becomes extremely drowsy and may pass out;
- o the heartbeat slows;
- respiration becomes shallow;
- o the skin may feel cold and clammy;
- o death may result from respiratory failure.

<u>Combinations</u> of depressants can be especially risky. Unfortunately, many people routinely do combine depressants, usually in the form of alcohol and some other depressant. In some cases, the effects that result may be greater than the sum of the effects that the two drugs would produce independently.

# E. Expected Results of the Evaluation

When a person under the influence of CNS Depressants is examined by a Drug Recognition Expert, the following results can be expected.

<u>Pupil size</u> generally will be normal; however, in the specific cases of Methaqualone ("ludes") or Soma, pupils usually will be dilated.

Horizontal Gaze Nystagmus usually will be present.

<u>Vertical Gaze Nystagmus</u> may be present, especially if the suspect has taken a large dose of the depressant.

Lack of Convergence will be present.

Pupil's reaction to light will be slow.

<u>Pulse rate</u> will be down; however, with Quaaludes and Etoh the pulse rate will be elevated.

Blood Pressure generally will be lowered.

Temperature will be normal.

<u>Injection Sites</u> usually will not be found; however, some Barbiturate abusers do inject. Their injection sites often will be swollen, and may appear ulcerated.

# General indicators

drowsiness droopy eyelids (ptosis) thick, slurred speech lack of coordination slow, sluggish reactions flaccid muscle tone

#### Topics for study

- 1. Name the six major subcategories of CNS Depressants.
- 2. Name the four groups of depressants based on onset and duration time factors.
- 3. To which subcategory of Depressants does <u>Thorazine</u> belong? To which subcategory does <u>Chloral Hydrate</u> belong? To which subcategory does <u>Xanax</u> belong?
- 4. Name a CNS Depressant that usually causes the pupils to dilate.
- 5. What is the generic name for the drug that has the trade name "Prozac"?
- 6. What is a trade name for the generic drug "Alprazolam"?
- 7. What is the name of the subcategory of CNS Depressants that is also known as the "Minor Tranquilizers"?

**Drug Influence Evaluation** DRE No 0 323 □ Fatal a Injury DOB 9-9-60 Arresting Officer (Name, ID No. Woodward Tom Chemical Test Urine C Blood Breath Results: O Refused Instrument# 1234 Time of last drink? Have you been drinking? How much? By: Woodward Chicken soup 1 Clock Are you sick or injured? Are you diabetic or epileptic? How long? Time now? When did you last sleep?, □ Yes WNo Are you under the care of a ductor or dentist? D Yes A No Do you have any physical defects? O Yes PNo Are you taking any medication or drugs? \( \text{Yes} \) \( \text{No} \) Norma Norma Blindness:
None OLEye OREye Tracking: FEqual © Unequal □ Normal □ Bloodshot Watery Slurred Able to follow stimulus: Yes D No Corrective Lens: Pupil Size: ÆEqual

O Unequal (explain) □ Normal #Droopy □ Glasses □ Contacts, if so □ Hard □ Soft One Leg Stand Left Eye Right Eye Vertical Nystagmus? □ Yes ₽ No 60,0050 Yes Lack of Smooth Pursuit Convergence Right Eye Yes Max. Deviation • Angle of Onset Cannot Keep Balance Starts Too Soon Sways While Balancing It Nine 2rd Nine Stops Walking & Uses Arms to Balance Misses Heel-Toe Steps Off Line ☐ Hopping Raises Arms Puts Foot Down Actual Steps Taken Internal Clock
46 Estimated At 30 Sec. Describe Turn Lost balance N/A Darkness Direct Room Light ○ Right 🛆 Left Left Eye 4.0 6.0 3.5 Draw lines from spot touched Right Eye Reaction To Light 5/0 W Rebound Dilation

□ Yes □ No Hippus O No PIGHT AAM 2 **(4**) Temp. Muscle Tone: C Normal | Flaccid Attach Photos Of Fresh Puncture Marks What Medicine or Drug Have You Been Using?

I TOOK SOME MEDICINE MY I

Brother Gave Me

Date/Time of Arrest
AUC. 6 2000 00/5

Member Signature (Inc) 40 7 8 9 8 Where Were The Drugs Used? (Location) Time of Use? I Time DRE Notified 0035 Brothers house. ID No. 8991 Rems O Inhalant A Rule Out □ Alcohol O Stimulant □ Narcotic Analgesic Cannabis □ Medical Depressant O Hallucinogen

| ·   |   |   |
|---|---|---|
|   | DRUG INFLUENCE EVALUATION   | Page <u>2</u> of <u>2</u>                           |
| LOG NO.   | DRE: Vem Alley  | ARRESTEE: Carolyn A. Cockroft                       |
| 1. LOCATION 2. WITNI<br>5. INITIAL OBSERVATION<br>9. SIGNS OF INGESTION | ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS 7. PSYCHO<br>1 10. SUSPECTS STATEMENTS 11. OPINIC | ON 12. TOXICOLOGY SAMPLE 13. MISC.                  |
| 1. LOCATION: Exami  | nation of Carolyn A. Cockroft took place in   | the Intoxilyzer Room, 8th District Hqtrs, PhoenixPD |
| 2. WITNESS: Arresting   | g Officer - Tom Woodward #4532 Phoenix  | PD  |
| 3. BREATH TEST: O   | ff. Woodward administered Intoxilyzer bre   | ath test to Cockroft, the result was 0.00%          |
| 4. NOTIFICATION /   | INTERVIEW of ARRESTING OFFICER  | R: Writer was notified by Woodward that he          |
| had arrested subject  | for DUI, and suspected that she was "high o   | n something". Off. Woodward further stated that the |
| subject had been driv   | ving at 10 mph on the LaCienda Expresswa  | y, and appeared dazed and stuporous.                |
| She performed the S   | SFSTs poorly but exhibited no odor of an a  | lcoholic beverage.                                  |
| 5. INITIAL OBSERV   | ATIONS: Writer observed subject in the  | Intoxilyzer Room, she was quiet, withdrawn and slow |
| to respond to questi  | ons. When walking towards the Intoxilyzer   | she stumbled and nearly fell.                       |
| 6 MEDICAL PROBI   | LEMS: None observed or stated.  |   |
| 7. PSYCHOPHYSIC.  | AL TESTS: Romberg Balance: Subject h  | ad approximately a 2" circular sway and estimated   |
| 46 seconds as 30 sec  | conds. Walk and Turn: Subject lost balance  | during the instructions, started to soon,           |
| stepped off the line,   | missed heel to toe, raised her arms, stagger  | red while turning and took (11) steps instead       |
| of (9). One Leg Sta   | nd: Subject swayed, raised her arms, hoppe  | d and put her foot down. Finger to                  |
| Nose: Subject miss  | ed tip of his nose on each attempt.   |   |
| 8. CLINICAL INDIC   | CATORS: Subject exhibited HGN and lack  | of convergence. Pulse was below the normal          |
| range. Systolic bloo  | od pressure was below the normal range. P   | upils reacted slowly to light.                      |
| o SIGNS of INGEST   | TON: None were evident  |   |
| 10. STATEMENTS:   | Subject admitted to taking "some medicine   | " her brother gave her. She stated that she did not |
| lenow what the me   | dicine was.   |   |
| 11. OPINION of EV   | ALUATOR: In my opinion Carolyn Cocki  | roft is under the influence of a CNS Depressant and |
| unable to operate   | •   |   |
|   | AL SAMPLE: Subject provided a urine sa  | mple.   |
| 13. MISCELLANEC   | •   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   |   |
|   |   | <del></del>   |

Drug Influence Evaluation
Rolling Log No.

| SECREANT THE COUNTRY  | · 4               | کارہ:∃  |   | <del>~ 4</del> ઉંટ  |  |  | ·X - み               |
|---|-------------------|---|---|---|--|--|----------------------|
| Recorder/Witness  | Crash:            | None<br>D Injury  | ָן מי   | Property  |  |  |                      |
| RC. STUBBLES . INCP TAR   |                   |   |   | • •   |  |  |                      |
| Arrestee's Name (Last, First, MI)   | DOB               | Sex   |   | Arresting Officer (I<br>Lal 足)  |  |  | HTD                  |
| Date Examined/Time/Location   | 05 H 55           |   | breath Results;   | G Refused   | Chemica  |  | □ Urine M Blood      |
| 4   |                   | `   T   | nstrument#  | .OE   | Chemica  | D Refused  |                      |
| DRE ROOM, A.T.B., SAC TO<br>Miranda Warning Given: RYes ONo What  | have you eaten to | day? Whe  | n? Have   | you been drinking?  | How  | much?  | Time of last drink?  |
| By:   |                   | "Laker T  |   | -   |  |  | <u>ایم ا</u>         |
| By: SCHEODER 212C CHE Time now? When did you last sleep? How long?  | Are you sick or   | r injured?  | n Yes   | XNo   | Are you  | diabetic or  |                      |
| i. I  | 1                 |   |   |   | o Ye   | es <b>≯</b> (No  |                      |
| O'ccoc " "LAST NIGHT" THES  Do you take insulin? Yes ANO  | Do you have a     | ny physical de  | efects? 🗆 Yes   | χNo   |  | under the c  |                      |
| ·   | ł                 | •   |   | ,   |  | r or dentist?<br>ニューストラン   | ∀Yes □No<br>S'       |
| Are you taking any medication or drugs? X Yes 11 No   | Attitude          | >   |   |   | Coordin  | iation   | かのなっとか               |
|   | Breath            |   |   |   | Face   |  | 2,30,1-1             |
| VALIUM ATIMES A DAY   | Eyes: O Re        | ALCOHOL<br>ddened Coniu                                       | _ic. REV든<br>nctiva   | Blindness:  | LOOK   | MAL  | Tracking:            |
|   | □ Normal 八        |   |   | None OL   | Eye OREy   | e j  | ≭Equai © Unequal     |
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Page 2\_of 2 DRUG INFLUENCE EVALUATION ARRESTEE: Impellizzeri, Michael T DRE: Sergeant Deb Schroder LOG NO. 1. LOCATION 2. WITNESS 3. BREATH TEST 4, NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. 1. LOCATION: Examination of Michael T. Impellizzeri, took place in the DRE room San Jose PD Hdqtrs. 2. WITNESS: Arresting Officer - C.D. Laird # 8825, Virgina Beach PD. R.C. Studdard, IACP/TAP Representative 3. BREATH TEST: Writer observed Officer Laird administer GCI breath test to Impellizzeri, the result was 0.05% 4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was conducting DRE certification training at VBPD Hqtr. Officer Laird stated that he and Mr. Studdard had come upon the subject slumped in the driver's seat of a vehicle stopped in W/B traffic lane of S.R. #175, near the intersection with Snowden River Pkwy. Officer Laird further stated subject appeared to be very drunk and performed poorly on the field sobriety tests. 5. INITIAL OBSERVATIONS: Writer observed subject seated in a slumped position in a chair next to the GCI. Subj. was mumbling, swaying, and was slow to respond to my initial questions. MEDICAL PROBLEMS: Subject stated he was under the care of a doctor for stress. 7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" font to back and estimated 50 seconds as 30 seconds. Walk and Turn: Subject lost balance twice during the instructions, stepped off the line, missed heel to toe, raised arms for balance, and staggered while turning. One Leg Stand: Subject swayed, raised arms, and put his foot down. Finger to Nose: Subject missed tip of his nose on each attempt. 8. CLINICAL INDICATORS: Subject exhibited HGN and lack of convergence. One of the pulse reading was below the normal range. Blood pressure was below the normal range. SIGNS of INGESTION: There was an odor of alcoholic beverage on the subjects breath. 10. STATEMENTS: Subject admitted to drinking wine and taking some Valium pills. He stated that he takes Valium (4) times per day for stress. 11. OPINION of EVALUATOR: In my opinion Michael Impellizzer is under the influence of Alcohol and another CNS Depressant and unable to operate a vehicle safely 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample. 13. MISCELLANEOUS: Subject voluntarily produced a vial containing which he identified as containing his Valium pills. He further stated that he had filled the prescription for (50) pills two days earlier. There were only 22 pills remaining.

# SESSION X

CENTRAL NERVOUS SYSTEM STIMULANTS

#### SESSION X CENTRAL NERVOUS SYSTEM STIMULANTS

Upon successfully completing this session, the participants will be able to:

- o Explain a brief history of the CNS Stimulant category of drugs.
- o Identify common drug names and terms associated with this category.
- o Identify common methods of administration for this category.
- o Explain the symptoms, observable signs and other effects associated with this category.
- o Explain the typical time parameters, i.e., on-set and duration of effects, associated with this category.
- Explain the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- o Correctly answer the "topics for study" questions at the end of this Section

#### A. Overview of Central Nervous System Stimulants

CNS Stimulants speed up the operation of the brain and spinal cord. It is important to emphasize that "speed up" does <u>not</u> mean "improve" or "enhance". The CNS Stimulants definitely do not make the brain work better. Rather, they cause the brain and the rest of the nervous system to work <u>harder</u>, and often to make more mistakes.

The "speeding up" caused by CNS Stimulants results in significantly increased heartbeat, respiration and blood pressure, all of which can lead to physical harm to the abuser. In addition, the stimulant user experiences nervousness, irritability and an inability to concentrate or think clearly.

There are three major subcategories of CNS Stimulants; cocaine, the amphetamines and others.

Cocaine derives from the coca plant, an evergreen native to South America. Cocaine is made from the plant's leaves. There is archaeological evidence that natives of Peru chewed coca leaves 5,000 years ago.

Amphetamines are synthetic (i.e., manufactured) drugs. They were first produced near the end of the 19th Century. Amphetamines have a number of legitimate medical applications, including control of narcolepsy; control of certain hyperactive behavioral disorders in children; relief or prevention of fatigue to allow persons to perform essential tasks of long duration; treatment of mild depression; control of appetite; prevention and treatment of surgical shock; treatment of Parkinson's Disease; maintenance of blood pressure during surgery; enhancement of the action of certain analgesic drugs; and, to antagonize the effects of depressant drugs. Numerous pharmaceutical companies manufacture amphetamines that are prescribed for these purposes. But these pharmaceutical amphetamines often are abused, as well.

Examples of common pharmaceutical amphetamines include:

DEXEDRINE

(dextroamphetamine sulfate)

Common street names: "Dexies"; "Hearts"

BENZEDRINE

(amphetamine sulfate)

Common street names: "Bennies"; "Whites"; "Cartwheels"

#### BIPHETAMINE

(combination of dextroamphetamine and amphetamine)
Common street name: "Black Beauty"

#### DESOXYN

(methamphetamine hydrochloride, also known desoxyephedrine)

Other relatively common pharmaceutical drugs are combinations of amphetamines and CNS depressants. One is DEXAMYL, which combines dextroamphetamine sulfate with amobarbital, a barbiturate.

Another is ESKATROL, a combination of dextroamphetamine sulfate with prochlorperazine, a non-barbiturate depressant. Persons using either of these drugs would be polydrug users, and would experience and exhibit effects of both depressants and CNS Stimulants. However, they might have no idea that they were using different categories of drugs, and might sincerely insist to the drug recognition expert that they had taken only one kind of pill.

Pharmaceutical amphetamines are not the only source of abused amphetamines. Large quantities also are illegally manufactured in clandestine laboratories. The two most common illicit amphetamines are <u>methamphetamine</u> and <u>amphetamine</u> sulfate.

Other non-cocaine and non-amphetamine CNS Stimulants include the prescriptive drugs Ritalin, Preludin and Cylert. Some CNS Stimulants are legally manufactured and distributed without prescription. Ephedrine is a legally manufactured stimulant which is commonly used in diet aids and body building supplements. Ephedrine can also be found in some herbal preparations. All have legitimate medical applications, but they also have the potential to be abused.

Other CNS Stimulants that are illicit and have no legitimate uses are Cathacine and Cathinone. They are two psychoactive chemicals derived from the Khat plant, which originated from the sub-Sahara regions of Africa. Methcathinone is an illicitly manufactured stimulant made from common household chemicals. It's effects are very similar to methamphetamine.

There are various ways in which CNS stimulant abusers ingest their drugs. Cocaine is commonly insufflated (snorted), smoked, injected and taken orally. Snorting may still be the most common method of ingesting cocaine, although smoking has become increasingly popular.

In order to be smoked, a pure form of cocaine is needed. Various chemical processes can be used to "free" the cocaine from other elements to which it is chemically bonded. The pure cocaine sometimes is called "freebase", and the practice of smoking it sometimes is called "freebasing".

One of the processes used to produce "freebase" produces the pure cocaine in the form of small, hard chunks. The chunks are often called "Crack" or "Rock Cocaine". The term "Crack" derives from the cracking sound the chunks produce when they are smoked.

The pharmaceutical amphetamines are produced in the form of tablets, capsules and liquid elixirs, and so they are ingested orally. Illicitly manufactured amphetamine sulfate usually is produced in tablet form (the tablets sometimes are called "mini beans"), and ingested orally.

Methamphetamine abusers often inject or smoke the drug. However, it can also be snorted or taken orally.

There is a crystalline form of methamphetamine that is known by the street name "Ice". It is abused in much the same way as "Crack", i.e., small bits of "Ice" are placed in the bowl of a pipe and flame from a butane lighter is applied to vaporize the drug; the smoker then draws the vapor into the lungs. Another crystalline form of methamphetamine, known as "crystal meth", is also smoked.

#### B. Possible Effects of CNS Stimulants

Cocaine and the amphetamines produce euphoria, a feeling that there are no problems. A feeling of super strength and absolute self confidence may also be present. With cocaine, but not with the amphetamines, there is also an anesthetic effect, i.e., a dulling of pain.



Stimulant users tend to become hyperactive, e.g., nervous, extremely talkative and unable to stand still. CNS Stimulants also tend to release the user's inhibition, and to impair the user's ability to perceive time and distance. Persons under the influence of CNS Stimulants become easily confused and lose the ability to concentrate or to think clearly for any length of time.

# C. Onset and Duration of CNS Stimulants' Effects

#### 1. Cocaine

In general, cocaine is a fairly fast acting, but short duration drug.

When <u>smoked</u>, or "freebased", cocaine goes very quickly to the brain. The smoker almost immediately feels a "rush", or very intense euphoria. However, the effects continue to be felt for only about 5-10 minutes.

When <u>injected</u>, the effects also begin very quickly, usually within just a few seconds, and the onset of effects is very intense. The effects usually continue to be felt for 45-90 minutes.

When insufflated or <u>snorted</u>, the onset of effects is still fairly rapid, although not so fast as with smoking or injection. The user generally feels the onset within about 30 seconds. A "rush" occurs, although it is not quite as intense as when the cocaine is smoked or injected. The user generally continues to feel the effects for 30-90 minutes after snorting the cocaine.

When <u>taken orally</u>, the user generally does not start to feel the effects of the cocaine for 3-5 minutes. And, the effects are not as intense as they are with other methods of ingestion. For these reasons, oral ingestion is the least preferred method of using cocaine. However, the effects of cocaine taken orally may last 15-30 minutes longer than they do when other methods of ingestion are used.

Because cocaine's effects are of relatively short duration, a cocaine user can present some difficulty to a drug recognition expert. The suspect may have been markedly impaired when first contacted by the arresting officer. But by the time the suspect is brought to the DRE, the effects of cocaine may have worn off to the point that the indicators of stimulant influence are no longer apparent. The DRE may be understandably frustrated when this occurs, but his or her conclusions as to the probable categories of drugs involved must reflect the observable evidence gleaned from the drug evaluation and classification examinations. The DRE should never "force" a conclusion as to an impairment that might have existed 30 minutes or an hour ago when he or she has no personal, credible basis for that conclusion.

Suspects who have ingested both cocaine and alcohol will produce a metabolite know as "Cocaethylene". This has a half-life of four hours, that possibly extends the effects of cocaine longer than norm.

#### 2. Methamphetamine

Methamphetamine also is a fairly fast acting drug, and its effects are very similar to cocaine's. However, methamphetamine's effects last a good deal longer.

When <u>injected</u>, methamphetamine's effects begin to be felt within a very few seconds. The user experiences an intense "rush", which lasts at the high level of intensity for 5-30 seconds. Subsequently, the user stays "high" or "wired' for 4-8 hours.

When smoked, the "rush" is very rapid and intense, much like the "rush" produced by "Crack". However, the smoker usually will remain impaired for at least several hours.

When methamphetamine is <u>taken orally</u>, the onset of effects is delayed, the "rush" is much less intense and the effects last longer.

When methamphetamine is <u>snorted</u>, the onset of effects is not quite as rapid as with smoking or injecting. The onset of effects are within 30 seconds, the rush is not as intense and the effects last between 30 and 90 minutes.

# D. Signs and Symptoms of Stimulant Overdose

The euphoria expected by a stimulant user can be replaced by panic if an overdose is taken. The user may become very confused, and suddenly aggressive. They can suffer convulsions, and possibly faint or pass into a coma. Heartbeat will increase, possibly dramatically, and heart arrhythmia (irregular beating) may develop. This may lead to cardiac arrest. Death can also occur from sudden respiratory failure.

Another danger is that subjects or their friends may attempt to counteract a stimulant overdose with barbiturates, possibly leading to an overdose of CNS Depressant.

Overdoses of cocaine or amphetamines can cause the pleasurable effects to turn into panic and often violent behavior. If the overdose is caused by cocaine, it is commonly referred to as, Cocaine Psychosis or Cocaine Delirium. Hallucinations may occur and many overdose victims complain of the feeling that bugs are crawling under their skin. This is commonly known as "coke bugs".

#### E. Expected Results of the Evaluation

When a person under the influence of CNS Stimulants is examined by a drug recognition expert, the following results can be expected.

Horizontal Gaze Nystagmus - none.

Vertical Gaze Nystagmus - none.

Lack of Convergence - none.

<u>Pupil Size</u> will be dilated. The pupils will usually appear markedly dilated (mydriasis), possibly even under direct light.

Pupil's reaction to light - slow.

Pulse Rate - up.

Blood Pressure - up.

Temperature - up.

Bruxism (i.e., grinding of the teeth) may be evident.

<u>Injection Sites</u> might be found, e.g., on the arms, wrists, neck, etc., especially with methamphetamine users but also with some cocaine users. Other cocaine users who routinely snort their drug may exhibit severe redness in the nasal area, and possibly scarring or erosion of the nasal septum.

#### General indicators:

restlessness
euphoria
anxiety
talkativeness
irritability
runny nose
redness to nasal area
grinding teeth, bruxism
leg and eyelid tremors
muscle tone is rigid

#### Topics for study

- 1. Why is it sometimes difficult for a drug recognition expert to obtain evidence of CNS Stimulant influence when examining a cocaine user?
- 2. What kinds of illicitly manufactured amphetamines are most commonly abused?
- 3. Name two CNS Stimulants other than Cocaine or the Amphetamine compounds.
- 4. How do CNS Stimulants usually affect the blood pressure and pulse rate?
- 5. True or false: A person under the influence of a CNS Stimulant alone usually will <u>not</u> exhibit Horizontal Gaze Nystagmus?
- 6. What is "bruxism"?

Drug Influence Evaluation Rolling Log No. DRE No Evaluator HAYES \_+1-U C None Mnjury Crash: Recorder/Witness D Property o Fatal Arresting Officer (Name, ID No.) DOB Sex Race Arrestee's Name (Last, First, MI) # 9922 2 7.10-63 M W <u>eng</u>le USP HED WND JAMES Breath Results: D Refused Chemical Test □ Urine K Blood Date Examined/Time/Location □ Refused Instrument# 0.00 7-8-96 2230 Miranda Warning Given: A Yes O No 7-8-96 CENTRAL TESTING 012838A Time of last drink? Have you been drinking? . How much? What have you eaten today? By: ENGLE 2 Decuso Now CANDY BAR とらりょうり N/A Are you diabetic or epileptic? Time now? When did you last sleep? caYes ≰No How long? Are you sick or injured? □ Yes X No So'cLock LAS Do you take insulin? Do you have any physical defects? I Yes No Are you under the care of □ Yes XNo a doctor or dentist? TYes XNo Coordination Are you taking any medication or drugs? D Yes ANo POOR STUMBLING COOPETATIVE
Breath HORMAL NORMAL Eyes: O Reddened Conjunctiva Tracking: Speech 🗶 Equal 🛭 Unequal XNormal □ Bloodshot □ Watery None OL Eye . OR Eye CIPAS NSNONS Pupil Size: KEqual
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7-8-96

Member Signature (Include Rank) Eval Start Time Time Completed 0160 JJ-9-0 ID No. 332 17FE O Alcohol O PCP Stimulant O Inhalant Opinion of Evaluator: a Rule Out ⊂ Hallucinogen O'Narcotic Analgesic □ Cannabis □ Medical Depressant

|                         | DRUG INFLUENCE EVALUATI   | ION Page 2_0f_2  |
|-------------------------|---|--|
| LOG NO.                 | DRE: Officer Ron Moen   | ARRESTEE: James R. Hedlund   |
| 5. INITIAL OBSERVATION  | ESS 3. BREATH TEST 4. NOTIFICATIONS 6. MEDICAL PROBLEMS 7. PSYON 10. SUSPECTS STATEMENTS 11. OF | ON / INTERVIEW ARRESTING OFCR.<br>CHOPHYSICAL 8. CLINICAL INDICATORS<br>PINION 12. TOXICOLOGY SAMPLE 13. MISC. |
| 1. LOCATION: Exami      | mation of James R. Hedlund took place   | in the DRE Room, 3rd Precinct, Tucson PD   |
| 2. WITNESS: Arresting   | g Officer - Officer R. Engle, #2309 Tucs  | son PD   |
| 3. BREATH TEST: O       | fficer Engle administered Intoxilyzer br  | eath test to Hedlund, the result was 0.00%   |
| 4. NOTIFICATION /       | INTERVIEW of ARRESTING OFFI   | CER: Writer was notified by Officer Engle immediately  |
| upon completion of t    | he breath test. Officer Engle stated sub  | ject had been apprehended for driving 110/65 zone and  |
| driving without head    | lights.   |  |
| 5. INITIAL OBSERV       | ATIONS: Writer observed subject in th   | e DRE room sitting next to Officer Engle. Subject rocked   |
| rocked back and forth   | h while seated on the bench.  |  |
| 6. MEDICAL PROBL        | EMS: None observed or stated.   |  |
| 7. PSYCHOPHYSICA        | L TESTS: Romberg Balance: Subject   | t swayed approximately 3" front to back and estimated 15   |
| seconds as 30 second    | s. Walk and Turn: Subject started to so   | on, lost balance during instructions, raised his arms,   |
| and turned in an abru   | pt swivel. One Leg Stand: Subject swa   | yed, raised his arms, hopped and put his foot down.  |
| Finger to Nose: Subje   | ct missed tip of his nose on each attemp  | t with his right hand.   |
| 8. CLINICAL INDICA      | ATORS: Subject's pulse, blood pressur   | e and temperature were above the normal range. His   |
| · pupils were dilated a | and reacted slowly to light.  |  |
| 9. SIGNS of INGESTI     | ON: Subjects nostrils were found to co  | ontain a residue of white powder:  |
| 10. STATEMENTS: St      | ubject denied taking any medicine or dr   | ugs. When asked, "how much coke did you snort  |
| tonight?" Subject s     | stated "I won't answer that"  |  |
| 11. OPINION of EVA      | LUATOR: In my opinion James R. He   | dlund is under the influence of a CNS Stimulant and  |
| unable to operate a     | vehicle safely.   |  |
| 12. TOXICOLOGICA        | L SAMPLE: Subject agreed to provide   | ed a blood sample.   |
| 13. MISCELLANEOU        | JS:   |  |
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**Drug Influence Evaluation** Rolling Log No. DRE No ℷℋℳ Recorder/Witness Crash: □ None □ Property O Injury O Fatal Arresting Officer (Name, ID No.) DOB Sex Arrestee's Name (Last, First, MI) ROBERTS 🗆 Urine Breath Result Chemical Test D Refused Instrument# /54/ OCT 10, 1996 Miranda Warning Given: 3KD DISTRICT Time of last drink? Have you been drinking? How much? When? What have you eaten today? ¥ Yes O No HOT VOTHING D06-Are you diabetic or epileptic? Are you sick or injured? When did you last sleep? □ Yes #No Are you under the care of Do you have any physical defects? O Yes No a doctor or dentist? U Yes Are you taking any medication or drugs? O Yes PNo HUMBUU COPERATI lesi LESS LORMAL NOKIMAL DONT DO DRU65 ii Reddened Conjunctive Blindness: VERY TALKATIVE ≠Equal © Unequal MNone OLEye OREye Normal □ Bloodshot □ Watery RAPID " TRIPPINE" OVER WERD Eyelids: Able to follow stimulus: Yes O No Corrective Lens: Normal Droopy ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft □ Unequal (explain) One Leg Stand Vertical Nystagmus? @Yes No. Right Eye Left Eye Pulse & Time HGN 1.100 , 2320 Lack of Smooth Pursuit NO NO Left Eve Right Eye Max. Deviation 10 NO Angle of Onset Cannot Keep Balance. Walk and Turn Test Romberg Balance Starts Too Soon L R Sways While Balancing Approx. Approx. 1ª Nine 2nd Nine Stops Walking Ises Arms to Balance Misses Heel-Toe Steps Off Line ☐ Hopping LEG TREMORS Raises Arms EYELID TREMORS Puts Foot Down Actual Steps Taker 9 Type of Footwear Cannot Do Test (Explain) Describe Turn SULLUCL TURN Internal Clock Estimated At 30 Sec. 5TREE7 SHOES ONE QUKE Direct Room Light Pupil Size Darkness C) Right A Left Left Eye 9.0 60 Oral Cavity Draw lines from spot touched CLEAR Right Eye 9:0 lo: Reaction To Light... Hippus O Yes Rebound Dilation □ Yes #No SLOW NEW MAN (2) <u>/3\</u> Temp Blood Pressure Muscle Tone: Normal | Flaccid | Rigid Attach Photos Of Fresh Puncture Marks Where Were The Drugs Used? (Location) Time of Use? What Medicine or Drug Have You Been Using? How Much? ANYMORE Time DRE Notified AGFUSE D Eval Start Time PerTime of Arrest 10. ID No. 7766 o PCP □ Inhalaht Stimulant Opinion of Evaluator: D Rule Out □ Alcohol Narcotic Analgesic Cannabis □ Hallucinogen ☐ Medical □ Depressant

|                          | DRUG INFLUENCE EVALUATION  | Page <u>2</u> of <u>2</u>                             |
|--------------------------|--|---|
| LOG NO.                  | DRE: Officer Clark John  | ARRESTEE: Kim J. Kohlhepp (m)                         |
| 5. INITIAL OBSERVATION   | ESS 3. BREATH TEST 4. NOTIFICATION / I<br>ONS 6. MEDICAL PROBLEMS 7. PSYCHOI<br>N 10. SUSPECTS STATEMENTS 11. OPINIC | PHYSICAL 8. CLINICAL INDICATORS                       |
| 1. LOCATION: Exami       | nation of Kim J. Kohlhepp took place in the  | DRE Room, 3rd Precinct, Alburqueque PD                |
| 2. WITNESS: Arresting    | g Officer - Officer R. Roberts, #8712 Albur  | queque PD   |
| 3. BREATH TEST: O        | fficer Roberts administered Intoxilyzer breat  | th test to Kohlhepp, the result was 0.00%             |
| 4. NOTIFICATION /        | INTERVIEW of ARRESTING OFFICER   | R: Writer was notified by Officer Roberts immediately |
| upon completion of t     | he breath test. Officer Roberts stated subjec  | t had been apprehended for driving 65/30 zone,        |
| failure to stop for a tr | raffic signal and driving without headlights.  |   |
| 5. INITIAL OBSERV        | ATIONS: Writer observed subject in the D   | RE room standing next to Officer Roberts.             |
| When told to sit dov     | wn, subject stood up again within several sec  | onds and fidgeted from foot to foot.                  |
| 6. MEDICAL PROBI         | LEMS: None observed or stated.   |   |
| 7. PSYCHOPHYSICA         | AL TESTS: Romberg Balance: Subject swa   | ayed approximately 2" side to side and estimated 12   |
| seconds as 30 second     | ds. Walk and Turn: Subject stepped off the l   | line, raised his arms, and turned in an abrupt (about |
| face) One Leg Stand      | : Subject swayed, raised his arms, hopped ar   | nd put his foot down. Finger to Nose: Subject missed  |
| tip of his nose on eac   | ch attempt.  |   |
| 8. CLINICAL INDIC        | ATORS: Subject's pulses, blood pressure a  | and temperature were above the normal range. His      |
| pupils were dilated a    | and reacted slowly to light.   |   |
| 9. SIGNS of INGEST       | ION: Subjects nostrils were found to be rec  | d and ulcerated.                                      |
| 10. STATEMENTS: S        | Subject denied ever using drugs. Subsequent  | tly stated "I don't use drugs anymore"                |
| 11. OPINION of EVA       | ALUATOR: In my opinion Kim Kohlhepp i  | s under the influence of a CNS Stimulant and unable   |
| to operate a vehicle     | e safely.  |   |
| 12. TOXICOLOGICA         | AL SAMPLE: Subject agreed to provided a  | a blood sample.                                       |
| 13. MISCELLANEO          | US: There is an outstanding bench warrant  | on the subject Kim J. Kohlhepp, for failure to appear |
| on a charge of poss      | session of methamphetamine.  |   |
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# SESSION XI

PRACTICE: EYE EXAMINATIONS

# SESSION XI PRACTICE: EYE EXAMINATIONS

Upon successfully completing this session, the participants will be able to:

- o Conduct examinations of pupil size and reaction to light, under both lighted room and darkened room conditions.
- o Articulate the eye examination procedures.
- o Document the results of the eye examinations.

In this session, you will practice estimating pupil size and assessing pupils' reaction to light. You will work in a team with fellow students, taking turns examining each other's eyes.

When it is not your turn either to administer the eye exams or serve as the examination subject, you should try to monitor the work of your team mate who is administering the exams and coach him or her as appropriate. In this way you can assist each other in developing skills.

To prepare for this session, make sure you can correctly answer the following questions:

- 1. How can you produce the faint, reddish light needed for the estimation of pupil size under near-total darkness?
- 2. How far in front of the subject's eye should the pen light be held during the direct light examination? How long must you shine the light into the subject's eye to evaluate the pupil's reaction to light?

(The information needed to answer these questions can be found in Part "G" of Session IV)

- 3. What is the technical term meaning "constricted pupils"?
- 4. What is the technical term meaning "dilated pupils"?
- 5. What is the technical term meaning "droopy eyelids"?

(The information needed to answer these questions can be found in Session V.)

# EYE EXAMINATIONS DATA SHEET

|                  |                  | •          |                  |
|------------------|------------------|------------|------------------|
| Subject's Name   | Subject's Name   |            | Subject's Name   |
| Under Room Light | Under Room Light | ight       | Under Room Light |
| Left Right       |                  | Left Right | Left Right       |
| Room<br>Light    | Room<br>Light    |            | Room             |
| Direct<br>Light  | Direct<br>Light  |            | Direct<br>Light  |
| Reaction:        | Reaction:        |            | Reaction:        |
| Hippus: Yes No   | Hippus:          | YesNo      | Hippus:YesNo     |
| In the Dark Room | In the Dark Room | mou        | In the Dark Room |
| Left Right       | H                | Left Right | Left Right       |
| Near<br>Total    | .Near<br>Total   |            | Near<br>Total    |
| Direct<br>Light  | Direct<br>Light  |            | Direct<br>Light  |
| Reaction:        | Reaction:        |            | Reaction:        |
| Hippus: Yes No   | Hippus:          | Yes No     | Hippus: Yes No   |

# SESSION XII

ALCOHOL WORKSHOP

#### SESSION XII ALCOHOL WORKSHOP

Upon successfully completing this session, the participants will be able to:

- o Correctly administer the preliminary clinical examinations and psychophysical tests used in the Drug Evaluation Procedure.
- o Observe and record the suspect's performance on the preliminary clinical examinations and psychophysical tests.
- o Determine the level of impairment based on the results of the suspects preliminary clinical examinations and psychophysical tests.

In this session, you will have the opportunity to practice administering portions of the Drug Evaluation and Classification Examination to persons who are actually under the influence of a drug. The drug involved is Alcohol, which undoubtedly is the most familiar and most frequently abused drug in our society. Alcohol belongs to the category of drugs known as Central Nervous System Depressants. The behaviors, signs and symptoms you observe in the volunteer drinkers participating in this session will, in many respects, be similar to what you will observe when you encounter persons under the influence of Barbiturates, Tranquilizers or other CNS Depressants.

Working in a team with fellow students, you will administer the following tests to each volunteer:

- o Horizontal Gaze Nystagmus (including estimation of onset angle)
- o Vertical Gaze Nystagmus
- o Lack of Convergence
- o Pupil Size Estimation (in room light)
- Romberg Balance
- o Walk and Turn
- o One Leg Stand (each volunteer will take this test twice, once on each leg)
- o Finger to Nose
- o Pulse Rate

You will record the results of these tests on the appropriate segments of the <u>Drug</u> Influence Evaluation form.

To prepare for this session, make sure that you know how to administer these tests, and that you know what clues to look for and how to recognize them. It will be a good idea to practice administering these tests (e.g., to fellow students, family members, etc.) to sharpen your skills in preparation for this session.

# SESSION XIII

PHYSICIAN'S DESK REFERENCE (PDR)

#### SESSION XIII PHYSICIAN'S DESK REFERENCE (PDR)

Upon successfully completing this session, the participants will be able to:

- o Explain how the various sections of the PDR can provide information that will:
  - aid in the drug influence evaluation;
  - aid in courtroom testimony.
- O Use the PDR in a practical exercise, when presented with color photographs of typical prescription drugs encountered in law enforcement contacts, the student will correctly identify and classify those drugs, and list the signs and symptoms that can be caused by them and observed and documented during a drug influence examination.

# A. The Physician's Desk Reference as a Resource

The <u>Physician's Desk Reference for Prescription Drugs</u> is a very useful reference source for a drug recognition expert. It provides detailed information, including photographs, on virtually every drug available for prescription in the country. Many of these drugs are either CNS depressants or CNS stimulants. Others are narcotic analgesics. Still others are combinations of these. Numerous trade names exist for certain drugs, since many manufacturers offer competing products.

During the course of an arrest and examination of a suspected drug impaired driver, it is not uncommon to discover pills, tablets, etc. on the suspect's person. Reference to the PDR usually can help to establish the identity and category of these drugs.

The PDR is published annually. Throughout the year, periodic supplements are published as new products come on the market.

#### B. The Contents of The PDR

The PDR contains the following color coded sections.

- (1) An index of all manufacturers who provided information on their prescription drugs.
- (2) An index of Product Names (including discontinued products).
- (3) An index of Products by Category of Drugs.
  In newer PDRs, the product category and generic sections have been combined.
- (4) A Generic and Chemical name index.
- (5) A Product Identification Section, including actual size and full color photographs.
- (6) A Product Information Section, describing the drug's composition, action and uses, administration and dosage, precautions, side effects and contraindications, the form in which it is supplied, etc.
- (7) A Diagnostic Product Information section.
- (8) A listing of the locations and emergency telephone numbers of poison control centers.
- (9) A guide to the management of drug overdoses.

# List of other reference guides:

- (1) Poison Control Centers
- (2) Medical Dictionaries
- (3) The Pill Book, The Drug Identification Bible, and other consumer guides to drugs
- (4) The DRE Newsletter
- (5) Newspaper, Magazines (High Times) and other Perodicals
- (6) New Software programs such as Pharmacists, Body Works, Mosbey's Medical Dictionary, and other programs on disks and CDs
- (7) NHTSA (Traffic Law Enforcement Division) and State DRE Coordinators
- (8) Traffic Law Center

SESSION XIV

HALLUCINOGENS

#### SESSION XIV HALLUCINOGENS

Upon successfully completing this session, the participants will be able to:

- o Explain a brief history of the Hallucinogen category of drugs.
- o Identify common drug names and terms associated with this category.
- o Identify common methods of administration for this category.
- o Explain the symptoms, observable signs and other effects associated with this category.
- o Explain the typical time parameters, i.e., onset and duration of effects, associated with this category.
- o State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- o Correctly answer the "topics for study" questions at the end of this Section.

### A. Overview of Hallucinogens

Hallucinogens are drugs that cause hallucinations. An hallucination is a sensory experience of something that does not exist outside the mind. It may involve hearing, seeing, smelling, tasting or feeling something that isn't really there. Or, it may involve distorted sensory perceptions, so that things look, sound, smell, taste or feel differently from the way they actually are.

Hallucinogenic drugs usually produce so called <u>pseudo-hallucinations</u>. This means that the user typically knows that what he or she is seeing, hearing, smelling, etc. is not real, but is a product of the drug.

One common type of hallucination produced by these drugs is called <u>synesthesia</u>, a transposing of sensory modes. For example, seeing a particular <u>sight</u> may cause the user to perceive a <u>sound</u>. Hearing a <u>sound</u> may cause him or her to perceive an <u>odor</u>. Thus, a person under the influence of an hallucinogen might hear a telephone ring, and "see" a flash of brilliant color. Or, he or she might look at something colored yellow and "smell" the fragrance of roses. Sometimes hallucinogen users will make statements indicating that they are experiencing synesthesia (examples: "That chair sounds beautiful!" "Look at those fantastic odors!"). Drug recognition experts should be alert for such statements, and be aware that they are significant indicators of this drug category.

Sometimes, the hallucinations can be very frightening to the user. The user may be panic stricken by what he or she is seeing or hearing, and may become uncontrollably excited, or even try to flee from the terror. Hallucinogen users call these kinds of experiences "bad trips". Users of Hallucinogens have been known to be driven into permanent insanity by these experiences.

A terrifying "bad trip" sometimes may be re-experienced as a <u>flashback</u>. Hallucinogen flashbacks apparently do not occur because of a residual quantity of drug in the user's body. Rather, flashbacks apparently are vivid recollections of a portion of a previous hallucinogenic experience. Essentially, flashbacks are very intense, and very frightening, day dreams.

There are three types of flashback; <u>emotional</u>, <u>somatic</u>, and <u>perceptual</u>. The emotional flashback is the most dangerous. It brings back strong feelings of panic, fear and loneliness, and creates an intense and very real recollection of the original "bad trip". A somatic flashback consists of altered bodily sensations, e.g., tremors, weakness, nausea, dizziness, etc. that were part of the original "trip". In a perceptual flashback, the user re-experiences some of the sensory distortions of the original "trip".

### C. Onset And Duration of Hallucinogens' Effects

- 1. Peyote's effects generally begin to be felt within one-half hour after eating the cactus "buttons". The initial effects often include nausea, possible vomiting, mild rise in blood pressure, pulse rate and temperature. And, the pupils dilate. After about one hour, sensory changes begin. The user experiences visual distortions, accompanied by rich colors. Objects take on new forms and begin to move. Shapes "come alive". The sensory changes reach their peak in about 3-4 hours, with synesthesia occurring at about that time period. After about 10 hours there will be a gradual decline in effects, with near total recovery in about 12 hours.
- 2. <u>Psilocybin's</u> effects also start to develop in about one-half hour. The user first experiences dizziness, a light headed feeling, and giddiness. The extremities (hands, feet, etc.) begin to feel very light or very heavy. After about 30-60 minutes, vision blurs. Colors become brighter and leave longer lasting after images. Objects take on sharp visual definition and hearing becomes more acute.

Sixty to ninety minutes after eating the mushrooms, color patterns and shapes start to develop. The surfaces of objects become wavy. Feelings of euphoria develop. Shortly thereafter, body sensations increase, along with mental perceptions. The user often becomes introspective.



After 2-3 hours, the effects begin to diminish.

- 3. <u>LSD's</u> effects begin to be felt in 30-45 minutes. Pulse rate, blood pressure and temperature rise. The pupils dilate. The hair starts to stand on end (piloerection). Nausea, dizziness and headache develop. The effects reach their peak in about 4-6 hours. After 7-9 hours, the effects diminish. The user generally feels normal after 10-12 hours.
- 4. MDA's effects usually begin within 40-60 minutes. The pupils dilate. Pulse rate and blood pressure increase. The effects reach their peak in about 90-120 minutes, and usually have dissipated within 8 hours.

## D. Signs And Symptoms of Hallucinogen Overdose

It is unlikely that Hallucinogens <u>directly</u> are life threatening. However, overdoses have often <u>indirectly</u> resulted in death. For example, one LSD user was killed when he attempted to stop a train, bare handed. The extreme panic and agitation of a "bad trip" have been known to lead to suicide, or to accidental deaths as users have tried to flee from their hallucinations.

The most common danger of an Hallucinogen overdose is an intense "bad trip", which can result in severe and sometimes permanent psychosis.

There is some evidence that prolonged use of LSD may produce organic brain damage, leading to impaired memory, reduced attention span, mental confusion, and impaired ability to deal with abstract concepts.

### E. Expected Results of the Evaluation

When a person under the influence of an Hallucinogen is examined by a drug recognition technician, the following results can be expected.

Horizontal Gaze Nystagmus - none.

Vertical Gaze Nystagmus - none.

Lack of Convergence - none.

Pupil size - dilated.

Pupil's <u>reaction to light</u> - normal. However, the psychedelic amphetamines usually will slow the pupils' reaction.

Pulse rate - up.

Blood pressure - up.

Temperature - up.

<u>Injection sites</u> generally will not be found. However, some LSD users do inject the drug.

General Indicators:

dazed appearance
body tremors
perspiring
uncoordinated movements
rigid muscle tone
difficulty with speech
statements suggesting hallucinations
distorted sensory perceptions

## Topics for study

- 1. What does "synesthesia" mean?
- 2. What is a "flashback"? What are the three types of "flashback"?
- 3. Name two naturally occurring Hallucinogens.
- 4. What is a "bad trip"?
- 5. What does "psychotomimetic" mean?
- 6. What is an "illusion"? What is a "delusion"?
- 7. What is the difference between "hallucinations" and "pseudo hallucinations"?
- 8. What is "piloerection"?

**Drug Influence Evaluation** Rolling Logo 605 PAGE **a≅** None Recorder/Witness Crash: O Property O Fatal 🛚 Injury BUONETO, R. BRACKEN Arrestee's Name (Last, First, MI) Arresting Officer (Name, ID No.) DOB Sex Race BUONETO HOECKLE REBECC Breath Results: OO D Refused Chemical Test □ Urine Blood Date Examined/Time/Location □ Refused Instrument# 2030 SEPT 23 1996 CENTRAL TESTING 1234 How much? What have you eaten today? When?
NOTHING I'M FASTING
BECAUSE OF MYRELIGIANS DUTY Have you been drinking?

MY LEC LG TON

PELMIT AC Time of last drink? Miranda Warning Given: 🍎 Yes 🗈 No BY: BUENETO ALCOHOL Are you diabetic or spileptic? Are you sick or injured? Yes DNo When did you last sleep? Time now? How long? □ Yes �No MY STOMACH IS UPSET THRS LAST NIGHT Are you under the care of Do you have any physical defects? D Yes • No Do you take insulin? **₽** No a doctor or dentist? D Yes #No Coordination UERY POOK
BARELY STAND
Face Attitude OFNELALLY COOPERAT WITHDRAWN FOISTRACTED Are you taking any medication or drugs? Il Yes 🔊 No Breath FLUCSH RANCOS O DOS Sour Tracking: Eves: Blindness: Speech **●**Equal © Unequal ●Normal □ Bloodshot □ Watery ●None □LEye □REye STUTT ERING AAPID Able to follow stimulus ¥ Yes □ No Eyelids: Pupil Size: 💣 Equal ● Normal © Droopy Glasses G Contacts, if so G Hard G Soft □ Unequal (explain) One Leg Stand Left Eye Right Eye Vertical Nystagmus? O Yes 🦸 No Pulse & Time HGN ,2040 NO NO Lack of Smooth Pursuit Convergence Left Eye Right Eye NO ,205 20 Max, Deviation NONE NONE Angle of Onset Cannot Keep Balance Walk and Turn Test Romberg Balance ADL Starts Too Soon Approx. 1" Nine 2" Nine G U Swaya While Balancing Stops Walking □ Uses Arms to Balance Misses Heel-Toe п Steps Off Line О O Hopping Raises Arms TEST STOPPED FUBTECT NOT ABLE TO MAIN TAIN HEEL TO TOE Ω D Puts Foot Down Cannot Do Test (Explain) Type of Footwear Describe Turn Internal Clock A Estimated At 30 Sec. N/A NIA MOCCASTA Pupil Size Room Light Darkness Direct O Right 🛆 Left Left Eye S.O Draw lines from spot touched **Oral Cavity** Right Eye 6.0 Hippus □ Yes Rebound Dilation Reaction To Light ₩No 🛘 Yes 🧬 No NORMAI  $\bigcirc$ (42 Temp 100,0104 Muscle Tone: O Normal O Flaccid PRigid Attach Photos Of Fresh Puncture Marks Comments: LIGIDITYIN ARMS Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? Time of Use? 1RUGS MYMESTELLY DESN'T PERUIT Date Time of Arrest Time DRE Notified Eval Start Time Time Completed 2010 2115 1930 2.3 Member Signature (Include Rank ID No. 3744 Reviewed By: M. 1000 D PCP □ inhalant Opinion of Evaluator: Rule Out □ Alcohal □ Stimulant D Narcotic Analgesic ti Depressant → Hallucinogen Cannabis □ Medical

# DRUG INFLUENCE EVALUATION Page 2 of 2 LOG NO. DRE: Sgt. Tom Page ARRESTEE: Rebecca S. Hoeckle 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. 1. LOCATION: Examination of Rebecca S. Hoeckle took place in the Central Testing Unit, Nassau County PD 2. WITNESS: Arresting Officer - Officer R. Buoneto, Nassau County PD and ADA Edward Bracken, Suffolk County 3. BREATH TEST: Officer Buoneto administered an Intoxilyzer breath test to Hoeckle, the result was 0.00% 4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was notified by Officer Buoneto and requested to conduct a DRE evaluation. Officer Buoneto stated the subject had been operating her 1994 Chevrolet (NY127 NCQ) and was stopped in the S/B traffic lane of Island Drive, at the intersection with Hauppage Drive for a green light. Upon approaching the vehicle, subject turned to him, pointed to the traffic light and said "God is light and the light is of God" 5. INITIAL OBSERVATIONS: Subject was seated next to the Intoxilyzer table and staring fixedly ahead. She slowely turned towards me and asked "are you of God?" I replied that my name was Tom, and that I would like to examine her. She nodded and said," God sent you therefore you must be good." Her speech was rapid and she stuttered slightly. 6. MEDICAL PROBLEMS: Subject indicated she was experiencing a mildly upset stomach. At the end of the DRE examination, Dr. J. P. Mooney was summoned to examine her. 7. PSYCHOPHYSICAL TESTS: Subject was unable to stand without assistance, and it was necessary to terminate the Romberg Balance, Walk and Turn, and the One Leg Stand Tests virtually immediately for the subjects own safety. Finger to Nose was conducted while the subject was in the seated position she missed tip of her nose on each attempt. 8. CLINICAL INDICATORS: Subject's pulse, blood pressure and temperature were above the normal range, and her pupils were dilated. 9. SIGNS of INGESTION: Subjects breath had a sour and rancid odor. 10. STATEMENTS: Subject stated that she was fasting for religious reasons, and that her religion forbids the ingestion of alcoholic beverages. She also stated that her medium doesn't allow her to use drugs. She further indicated that her medium is her religious leader a man "whose body is of fire and air, and whose spirit is of light, which is of God" She indicated she had just attended a service conducted by the medium. 11. OPINION of EVALUATOR: In my opinion Rebecca S. Hoeckle is under the influence of a Hallucinogen and unable to operate a vehicle safely. 12. TOXICOLOGICAL SAMPLE: Subject agreed to provided a blood sample. 13, MISCELLANEOUS:

**Drug Influence Evaluation** Rolling Log No. Evaluator AVERSAT, A U None Crash: O Property □ Injury n Fatal Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) DOB WARBURTON, CWNY
Date Examined/Time/Location JACKSON #6310 □ Urine #Blood Breath Resultation a Refused Chemical Test □ Refused Instrument# 1340 APRIL 25 1996 Miranda Warning Given: 2.00 DISTRICT Have you been drinking? How much? Time of last drink? When? What have you eaten today? SACKSON, F SPAGHETTI NOTHING Are you diabetic or epileptic? Are you sick or injured?

I DON'T THINK SO

BIT I FEEL 1107 When did you last sleep? Time now? O Yes ⊯No Bit T FECL 1107

Do you have any physical defects? □ Yes No Are you under the care of Do you take insulin? a doctor or dentist? □Yes ≪No Coordination Are you taking any medication or drugs? D Yes No Attitude LOOPERATIVE DISTRATE BUT FEAREUL Breath NORMAL

Reddened Conjunctiva PERSPIRING Blindness: Speech RAMBLING None DLEye OREye **■**Equal □ Unequal ●Normal □ Bloodshot □ Watery Corrective Lens: None Policies Contacts, if so Charles Contacts of Able to follow stimulus: Yes [] No Evelids: Pupil Size: Equal Normal Droopy D Unequal (explain) LEG SHAFING Left Eye Right Eye Vertical Nystagmus? U Yes - 4 No One Leg Stand HGN Pulse & Time Lack of Smooth Pursuit Convergence w Right Eye Left Eye Max. Deviation 12340 Angle of Onset Cannot Keep Balarice\_y/ Walk and Turn Test Romberg Balance LEG TROMORS Starts Too Soon Approx. B Sways While Balancing Approx. \*Nine 2"Nine Stops Walking Uses Arms to Balance Misses Heel-Toe Steps Off Line h Hopping Raises Arms CHITAVÍ CONSTAN Puts Foot Down Actual Steps Taker 성 Cannot Do Test (Explain) Type of Footwear Internal Clock Describe Turn Less BALANCE N) /O\_Estimated At 30 Sec. LOAFERS STUMBLED. NEARLY FELL Pupil Size Room Light Darkness Direct NI CAM FEEL MY FACE THE LESS Left Eye 60 5,5 Draw lines from spot touched Oral Cavity Right Eye 5.5 7, 5 Hippus Rebound Dilation Reaction To Light □ Yes , •No □ Yes #No NORMAL MONT ANN (2)4 102 Blood Pressure\_\_ Тещр Muscle Tone: O Normal O Flaccid PRigid Attach Photos Of Fresh Puncture Marks Comments: ARMS 1665 R1610 Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? Time of Use? NO ANSCUER Time DRE Notified Time Completed ID No. 6632 o PCP O Inhalant O Rule Out Opinion of Evaluator: □ Alcohol O Stimulant O Cannabia O Narcotic Analgesic □ Medical © Depressant Hallucinogen

# DRUG INFLUENCE EVALUATION Page 2. of 2. LOG NO. ARRESTEE: Cindy T. Warburton DRE: Sgt. Art Haversat I. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. 1. LOCATION: Examination of Cindy T. Warburton, took place in the DRE room, 2nd District Hdqtrs. Capitol PD 2. WITNESS: Arresting Officer - F. Jackson #6310 Capitol PD and R.C. Studdard, IACP/TAP Representative 3. BREATH TEST: Writer observed Officer Jackson administer GCI breath test to Warburton, the result was 0.00% 4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was serving as on-duty DRE for 2nd District when informed by dispatch that Officer Jackson was enroute with a subject and was requesting a drug evaluation. Upon arrival Officer Jackson stated the subject had been arrested driving N/B along the gravel shoulder of the S/B lane Higgenbotham Ave. Jackson further stated the subject pointed to the police baton and shouted "My God there's a terrible big snake hanging from your belt. Subsequently, she shouted that the blue and red emergency lights on his of cruiser were bleeding into her eyes and skin. 5. INITIAL OBSERVATIONS: Writer observed subject seated next to the GCI. Subject was very frightened and disoriented. She pointed to the clock on the wall and shouted "Keep that off me, keep it away!" At the time the clock indicated 2245 hours. Minutes later in response to my question "What time is it now?" Subject stated it was "7 o'clock" MEDICAL PROBLEMS: None observed or stated. 7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" side to side and estimated 10 seconds as 30 seconds. Walk and Turn: Subject started walking to soon, lost her balance during the instructions, missed heel to toe, stopped walking, stepped off the line, raised her arms, staggered while turning, and only took (8) steps on the way back. One Leg Stand: Subject swayed, raised arms, hopped, and put her foot down. Finger to Nose: Subject missed tip of her nose on each attempt. She opened her eyes and shouted "I can't feel my face! My face is missing!" 8. CLINICAL INDICATORS: Subject had dilated pupils. Blood pressure, pulse, and temperature were above the normal range. 9. SIGNS of INGESTION: None were evident 10. STATEMENTS: Subject stated that she felt hot, and denied any drug use. 11. OPINION of EVALUATOR: In my opinion Cindy T. Warburton is under the influence of a Hallucinogen, and unable to operate a vehicle safely 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample. 13. MISCELLANEOUS: At the time of the evaluation, subject was wearing a T-shirt bearing the words "Legalize Acid"

Drug Influence Evaluation Rolling Log No. Evalua of OHN None Crash: Recorder/Witness D Property U Fatal u Injury Arresting Officer (Name, II) No.) DOB Sex Arrestee's Name (Last, First, MI) #3210 NCPD M 06/19/66 SUCLIANAN. Chemical Test □ Urine 📜 Blood Breath Results; 05 0 Refused CENTRAL □ Refused Instrument# 1234 TESTING 1996 Have you been drinking? Time of last drink? How much? What have you eaten today? When? Miranda Warning Given: W. Yes □ No ABUT 6 PM COUPLE OF BEEKS Are you sick or injured? □ No Are you diabetic or epileptic? #Yes □ Yes 👗 No THINK I MICHT THROW-OF Do you have any physical defects? O Yes A No Are you under the care of a doctor or dentist? • Yes \*No Are you taking any medication or drugs? "Yes No Attitude nation Asil - STALL-ERING CooleRATINE WITADRAWN PERSPIRING HEAVILY Tracking: Breath NORMAL Eyes: O Reddened Conjunctiva
O Normal O Bloodshot Watery Blindness: Speech DIFFICULTY IN SPEAKING # Equal □ Unequal MNone DLEye DREye RAMBCINE-Able to follow stimulus: # Yes □ No Evelids: Corrective Lens: 

▼None

□ Glasses □ Contacts, if so □ Hard □ Soft Pupil Size: R Equal Normal Droopy □ Unequal (explain) TEST One Leg Stand Vertical Nyetagmus? 5 Yes No Right Eye Pulse & Time HĠN Left Eye STOPPED (D) Ø) (D 1.//6 YES YES Convergence Lack of Smooth Pursuit Right Eye Left Eye NO Max. Deviation **%** NONE NONE Angle of Onset STOPED STANCE Cannot Keep Balance Walk and Turn Test TEST Romberg Balance COULD NOT MAINTAIN I" Nine 2" Nine D Sways While Balancing Stops Walking Misses Heel Toe D Uses Arms to Balance Steps Off Line □ Hopping STATED THAT THE WHITE Raises Arms D Puts Foot Down Actual Steps Taker LINK RESEMBLED A LAZY SNAKE Cannot Do Test (Explain) STE 1900 OF-Type of Footwear Describe Turn Internal Clock 35 Estimated At 90 Sec. RUNNUL Shoes N/A MSTEUCTIONS Room Light Darkness Direct Pupil Size ○ Right △ Left Left Eye G. 5 5.0. Oral Cavity Drawlines from spot touched Right Eye 5 5 5.0 Rebound Dilation Reaction To Light Hippus □ Yes >No · NORMAL >2 No  $(2\overline{2})$ (4)(5) Temp/00. 5 102 Blood Pressure\_ Muscle Tone: □ Normal □ Flaccid MRigid Attach Photos Of Fresh Puncture Marks Comments: ARMS, NECK, FACE Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? Time of Use? NOPINE ANSWER 410 NO ANSWERZ ANSWER Time DRE Notified Eval Start Time Date/Time of Arrest 1996

AA 25 1996

Member Signature (Include Rank) 000 ID No. Reviewed By: O Inhalant □ Stimulant o PCP D Role Out Alcohol Opinion of Evaluator: D Narcotic Analgesic Cannabis **H**iallucinogen O Medical □ Depressant

|                       | DRUG INFLUENCE EVALUATION   | Page_2_of _2  |
|-----------------------|---|---|
| LOG NO.               | DRE: Sgt. Bob Hohn  | ARRESTEE: Lew B. Buchanan                               |
| 5 INITIAL OBSERVATION | ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS 7. PSYCHO<br>N 10. SUSPECTS STATEMENTS 11. OPINIO | PHYSICAL 8. CLINICAL INDICATORS                         |
| 1. LOCATION: Exami    | nation of Lew B. Buchanan, took place in t  | the DRE room, Central Testing Unit Nassau County        |
| 2. WITNESS: Arresting | g Officer - D. Gregory, Nassau County PD  |   |
| 3. BREATH TEST: W     | riter observed Officer Gregory administer   | GCI breath test to Buchanan, the result was 0.05%.      |
| Subject later admitt  | ed to consuming "a couple of beers"   |   |
| 4. NOTIFICATION/      | INTERVIEW of ARRESTING OFFICEI  | R: Writer was summoned to Central Testing to            |
| conduct a DRE evalu   | nation. Officer Gregory stated he had observ  | red subject driving at 10/55 zone on the                |
| Cross Island Parkwa   | y, drifting from lane to lane. Subject perfor   | med poorly on the SFSTs.                                |
| 5. INITIAL OBSERV     | ATIONS: Writer observed subject in the br   | eath testing room, he was swaying slightly as he stood, |
| and appeared dazed    | and disoriented. He responded slowly to m   | y greeting, but was generally cooperative and           |
|                       |   | is it now?" Subject stated it was "about 10 o'clock"    |
|                       | EMS: Subject indicated some nausea  |   |
| 7. PSYCHOPHYSICA      | AL TESTS: Romberg Balance: Subject sw   | vayed approximately 3" in a circular motion and         |
| estimated 35 second   | ls as 30 seconds. Walk and Turn and One I   | eg Stand: Subject was unable to perform tests. Tests    |
| were terminated for   | subject's safety. Finger to Nose: Subject n   | nissed tip of his nose on each attempt.                 |
| 8. CLINICAL INDIC     | ATORS: Subject exhibited lack of smooth   | pursuit and dilated pupils. Blood pressure, pulse, and  |
| temperature were at   | pove the normal range.  |   |
| 9. SIGNS of INGEST    | ION: None were evident  |   |
| 10. STATEMENTS: S     | Subject stated that he did not used any drugs   | s.  |
|                       | LUATOR: In my opinion Lew B. Buchar   |   |
|                       | unable to operate a vehicle safely  |   |
|                       | AL SAMPLE: Subject agreed to provide a  | blood sample.   |
| 13. MISCELLANEO       |   | 4.  |
|                       |   |   |
|                       |   |   |
| <u></u>               |   |   |

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**Drug Influence Evaluation** Rolling Log No. 284 Evaluator GEORGE メイエー MARK X None Recorder/Witness □ Property O Fatal ti Injury DOB Race Arresting Officer (Name, ID No.) Sex Arrestee's Name (Last, First, MI) たどら) キ MYSP 9-6-59 M Н BROWLL A ROSS ROBERT Breath Results: □ Refused Chemical Test O Urine A Blood Date Examined/Time/Location NYSP □ Refused 477 Instrument# 0.00 DEC 8, 2000 2145 mms DISTRICT 17838 Have you been drinking? How much? Time of last drink? What have you eaten today? Miranda Warning Given: XYes □ No When? By: BROWY ALA "DOTHIDG" 12/ム CUICKEN А 7514 Are you diabetic or epileptic? □Yes MNo When did you last sleep? How long? Are you sick or injured? □Yes KNo کا ہ دسجیا YESTER DAY Are you under the care of Do you have any physical defects? I Yes M No Do you take insulin? a doctor or dentist? U Yes No Coordination Attitude Are you taking any medication or drugs? O Yes No POOR, STAGGERING COOPERATIVE PASSIVE Breath FLUSHED BUSEATY CHEMICAL ひりびご D Reddened Conjunctiva Blindness: Tracking. Speech None OL Eye OR Eye Equal O Unequal Normal DBloodshot DWatery Sweled, Slow & Low Able to follow stimulus: XYes a No Pupil Size: ★Equal

Unequal (explain) Corrective Lens: KNormal □ Droopy □ Glasses □ Contacts, if so □ Hard □ Soft One Leg Stand HGN Left Eye Right Eye Vertical Nystagmus? XYes □ No. Pulse & Time 1 100 / 2150 Lack of Smooth Pursuit Convergence **765** VES Left Eye Right Eye 2, 108 / 2204 Max, Deviation Y25 ye s . 0 FIEG 1001.8 Angle of Onset MANEDIATE MMEDIATE TEST STOUPED TEST STOPPED Walk and Turn Test Cannot Keep Balance 🗸 Romberg Balance Starts Too Soon & Approx. 2<sup>rd</sup> Nine i\* Nine Sways While Balancing Stops Walking 3, ( Misses Heel-Toe Uses Arms to Balance ALL ALL Steps Off Line ø O Hopping Raises Arms Jp/ Puts Foot Down Actual Steps Taken 9 C CIRCULAR Cannot Do Test (Explain) Type of Footwear Describe Turn SWINGLED IN ONE Internal Clock ABRUPT HOTION, LOST 45 \_Estimated At 30 Sec. N/A TENINIS SHOES BALANCE Nasal Area Pupil Size Room Light Darkness Direct ○ Right △ Left CLEAP Left Eye 3.5 6.0 Draw lines from spot touched 4.0 Oral Cavity CHEMICAL Right Eye 3.5 ODDE ON GREATH 4.0 <u>ن.</u>ن Rebound Dilation Reaction To Light Hippus D Yes ijYes ≰No ΧNο NORMAL MONT AND .(2) (4)NO VISIBLE MARKE Temp 99.8 146 1.100 Blood Pressure\_ Muscle Tone: D Normal D Flaceld ARigid Attach Photos Of Fresh Puncture Marks Comments: JERY RIGID AZMS Where Were The Drugs Used? (Location) How Much? Time of Use? What Medicine or Drug Have You Been Using? <u>م برنی سیم</u> ماه علادرية でのコミルの Date/Time of Arrest

Member Signature (Include Rank) Time DRE Notified Eval Start Time Time Completed ع درج 222-0 عند ID No. Reviewed By: 70C FARMAR # 10978 <u>Lair</u> O Rule Out □ Inhalant □ Stimulant □ Alcohal Opinion of Evaluator: O Cannabis □ Hailucinogen □ Depressant □ Medical

|                        | DRUG INFLUENCE EVALUATION  | Page_2_of_2  |
|------------------------|--|--|
| LOG NO:                | DRE: Sgt. Mark George  | ARRESTEE: Robert H. Ross                               |
| 5. INITIAL OBSERVATION | ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS 7. PSYCHO.<br>I 10. SUSPECTS STATEMENTS 11. OPINIC | PHYSICAL 8. CLINICAL INDICATORS                        |
| 1. LOCATION: Exami     | nation of Robert H. Ross, took place in the  | DRE room, NYSP Tarrytown                               |
| 2. WITNESS: Arresting  | g Officer - Trooper Alan D. Brown  |  |
| 3. BREATH TEST: Tr     | oper Brown administer a breath test to Ros   | s at 2135 hours, the result was 0.00%                  |
| 4. NOTIFICATION /      | INTERVIEW of ARRESTING OFFICER   | R: Writer was contacted by radio at 2120 hrs. and      |
| advised to return to t | the station to conduct a DRE evaluation. Tp  | or. Brown informed me that he had observed Ross        |
| driving S/B in the m   | nedian of the NYS Thruway, at approximate  | ly 10 mph. Brown stated that the subject appeared      |
| dazed and could not    | state where he was or where he had come  | from.  |
| 5. INITIAL OBSERVA     | ATIONS: Writer observed subject at 2140 l  | nrs. He appeared dazed and disoriented, he had a       |
| fixed stare and respo  | onded very slowly (approx. 5 - 10 seconds d  | elay) to all my questions and instructions.            |
| 6. MEDICAL PROBL       | EMS: None noted or stated  |  |
| 7. PSYCHOPHYSICA       | L TESTS: Romberg Balance: Subject swi  | ayed approximately 3" in a circular motion and         |
| estimated 45 seconds   | s as 30 seconds. Walk and Turn: Subject st   | arted walking immediately, lost balance during the     |
| instructions, stepped  | off the line, stopped walking, repeatedly us   | ed his arms for balance, and missed heel to toe        |
| One Leg Stand: Subj    | ect unable to complete the test using either   | foot. Finger to Nose: Subject missed                   |
| tip of his nose on eac | ch attempt and his arm movements were ver  | y rigid.   |
| 8. CLINICAL INDICA     | ATORS: Subject exhibited immediate onset   | of HGN, vertical nystagmus, and lack of                |
| convergence. Blood     | pressure, pulse and body temperature were  | above the normal range                                 |
| 9. SIGNS of INGEST     | ION: There was a strong chemical odor on   | the subject's breath.                                  |
| 10. STATEMENTS: S      | ubject stated that he did not use any drugs.   | ·  |
| 11. OPINION of EVAL    | LUATOR: In my opinion Robert H. Ross i   | is under the influence of Phencyclidine, or an         |
| analog, and unable t   | to operate a vehicle safely  |  |
| 12. TOXICOLOGICA       | L SAMPLE: Subject agreed to provide a b  | lood sample.   |
| 13. MISCELLANEOU       | US: Three (3) discolored filtered cigarettes in  | n a "Kool" box were found in the subject's right shirt |
| pocket, and were se    | ent to the laboratory for analysis.  |  |
|                        |  |  |

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**Drug Influence Evaluation** Rolling Log 10 OZZZ 0577 ii None □ Property D Injury Mark beorge Arrestee's Name (Last, First, M Race Arresting Officer (Name, ID No.) 872Z Mark Georg F Schroeder Breath Results: O CA Refused Chemical Test Date Examined/Time/Location □ Refused Instrument # /234 Central Testing 5-2-2000 2300 How much? Time of last drink? Have you been drinking? When? Miranda Warning Given: X Yes 🗆 No What have you eaten today? 5 pm 5 PM Beer By: Blea, John Pizza Are you diabetic or epileptic? Are you sick or injured? When did you last sleep? □Yes #No 6 hrs. Do you have any physical defects? O Yes O No Are you under the care of No response Attitude Withdrawn, non responsive Are you taking any medication or drugs? a Yes \*No Breath Chemical Odor Eyes: O Reddened Conjunctiva Blindness: Speech S/Ow, slurred, attimes ≢ Equal □ Unequal None OL Eye OR Eye Normal □ Bloodshot □ Watery did not respond Able to follow stimulus: A Yes □ No Pupil Size: Equal Corrective Lens: Normal Droopy □ Glasses □ Contacts, if so □ Hard □ Soft □ Unequal (explain) -distinct Vertical Nystagmus? Yes UNo Right Eye Left Eye Pulse & Time No≠. 120,2310 425 Yes GIVERS Convergence Lack of Smooth Pursuit Left Eye Right Eye 4es Max. Deviation • Immediate Immediate Angle of Onset Subject fell and fat Cannot Keep Balance R Stopped. Walk and Turn Test Romberg Balance Starts Too Soon 1" Nine 2" Nine □ Sways While Balancing Stops Walking walked stiff □ Uses Arms to Balance Misses Heel-Toe arms locked. Steps Off Line □ Hopping Raises Arms Constant /v D Puts Foot Down Actual Steps Taken Describe Turn Swive /ed abruptly Cannot Do Test (Explain) Internal Clock Loafers Staggered to the left. 40 Estimated At 30 Sec. Darkness Direct Room Light C) Right A Left Left Eye 4.0 3.5 6.5 Draw lines from spot touched Clear Right Eye 4.0 Reaction To Light
Normal Rehound Dilation Hippus O Yes □Yes ≪No # No 2 Temp 100.5 Muscle Tone: □ Normal □ Flaccid ■ Rigid Attach Photos Of Fresh Puncture Marks Comments Arms & week very rigid Where Were The Drugs-Used? (Location) Time of Use? How Much? What Medicine or Drug Have You Been Using? No response No response No response Time DRE Notified May 2 2000 ID No. 1176 □ Ibhalant O Stimulant 🛘 Alcohol A Rule Out Opinion of Evaluator; 🗆 Narcotic Analgesic O Cannabis O Hallucinogen O Depressant □ Medical

#### DRUG INFLUENCE EVALUATION

Page\_2\_of\_2

LOG NO.

DRE: Officer John Blea

ARRESTEE; D. Schroeder

- 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
- 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
- 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.
- 1. LOCATION: Examination of D. Schroeder took place in the DRE room, Denver PD Headquarters
- 2. WITNESS: Arresting Officer Officer Mark George
- BREATH TEST: Officer George administered a breath test to Schroeder at 2300 hours, the result was
   0.04%. At this time subject admitted she had consumed some beer.
- 4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio at 2245 hrs. and advised to return to Headquarters to conduct a DRE evaluation. Officer George informed me that he had observed the subject fail to obey a stop sign. At the time of the stop Schroeder was smoking a cigarette which gave off a strong chemical odor. Additional examination of the cigarette indicated the possibility of some form of string in the middle.
- 5. INITIAL OBSERVATIONS: Writer observed subject sitting quietly in the DRE room, staring at the floor, and taking no notice of the activity around her. It was necessary to instruct the subject twice to raise her head before she complied.
- 6. MEDICAL PROBLEMS: None noted or stated
- 7. PSYCHOPHYSICAL TESTS: Ms. Schroeder was very slow in responding to all instructions during this portion of the examination. Romberg Balance: Subject swayed approximately 3" in a circular motion and estimated 40 seconds as 30 seconds. Walk and Turn: Subject lost balance during the instructions, took the wrong number of steps, turned abruptly, stepped off the line, and repeatedly used her arms for balance. On the return she never touched heel to toe and simply took 12 "normal" steps. Her legs seemed very stiff and rigid. One Leg Stand: Subject fell after only three (3) seconds. Finger to Nose: Subject missed tip of her nose on each attempt and on one attempt missed her nose entirely.
- 8. CLINICAL INDICATORS: Subject exhibited immediate onset of HGN, vertical nystagmus, and lack of convergence. Blood pressure, pulse and body temperature were above the normal range.
- 9. SIGNS of INGESTION: There was a strong chemical odor on the subject's breath.
- 10. STATEMENTS: Subject stated that she had drank "one (1) beer" She did not respond to the questions regarding drug use or questions concerning the cigarette.
- 11. OPINION of EVALUATOR: In my opinion D. Schroeder is under the influence of Alcohol and Phencyclidine, or an analog, and unable to operate a vehicle safely.
- 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.
- 13. MISCELLANEOUS: The confiscated cigarette was sent to the laboratory for analysis.

# SESSION XV

PRACTICE: TEST INTERPRETATION

## SESSION XV PRACTICE: TEST INTERPRETATION

Upon successfully completing this session, the participants will be able to:

- Analyze the results of a complete Drug Evaluation and Classification Examination and identify the category or categories of drugs affecting the individual examined.
- o Articulate the bases for the drug category identification.

In this session, you will have an opportunity to review some Drug Evaluation and Classification report forms. These "exemplars" are not based on examinations of actual suspects, but the "findings" they display are realistic simulations of what you will observe when you examine suspected drug impaired drivers in the future.

Your task is to review the forms, consider all of the "evidence" they provide, and decide what category of drugs -- if any -- is involved in each case. Naturally, since we have only covered three categories thus far in our training, the "exemplars" only reflect those categories. Also, to make this practice session relatively easy, no combinations of categories have been included in these "exemplars".

In subsequent practice sessions of this type, you will be exposed to "exemplars" reflecting additional drug categories and combinations of categories.

**Drug Influence Evaluation** o None Crash: Recorder/ a Injury Property □ Fatal Arresting Officer (Name, 1D No.) Breath Results: , 00 Refused Chemical Test □ Urine **≠** Blood ☐ Refused Instrument# Have you been drinking? How much? Time of last drink? What have you eaten today? When? 1)00w Are you diabetic or epileptic When did you last sleep? Are you sick or injured? □ Yes No Do you have any physical defects? U Yes & No Are you under the care of a doctor or dentist? D Yes #No Are you taking any medication or drugs? U Yes No COOPED ATOL Face Breath Eves: D Reddened Conjunctiva Tracking: Speech # Equal □ Unequal None ·□LEye □REye ■ Normal □ Bloodshot □ Watery Slow SLURRED, THICK TONG Corrective Lens: None

Glasses C Contacts, if so G Hard G Soft Able to follow stimulus: → Yes □ No Evelids: Pupil Size: 🗷 Equal D Normal Droopy ti Unequal (explain) Right Eye Vertical Nystagmus? □ Yes □ No One Leg Stand HGN Left Eye Pulse & Time Yes Convergence Lack of Smooth Pursuit Left Eye Right Eye Yes Max. Deviation 0 Angle of Onset Walk and Turn Test Cannot Keep Balance Romberg Balance Starts Too Soon Approx. Sways While Balancing .2<sup>™</sup> Nine Stops Walking Uses Arms to Balance Misses Heel-Toe Steps Off Line □ Hopping Raises Arms Z Puts Foot Down Actual Steps Takes Cannot Do Test (Explain) Type of Footwer Internal Clock Describe Turn TURNED BACKWARES \_\_\_\_\_\_\_Estimated At 30 Sec. HiGH Heels Darkness Direct Pupil Size Room Light ○ Right △ Left Left Eye 6.0 3.0 4.0 Draw lines from spot touched Oral Cavity Right Eye 4.0 3.0 6.0 Rebound Dilation Hippus Reaction To Light ☐ Yes **ď** No □ Yes ØNo (2)<u>/1</u> /3 Temp Muscle Tone: 

Normal Attach Photos Of Fresh Puncture Marks Comments: VON LOOSE What Medicine or Drug Have You Been Using? Where Were The Drugs Used? (Location) How Much? USld PFUSEd NOVE ime DRE Notified Time Completed Member Signature (II O'Inhalant □ Stimulant □ Alcohol 1 Rule Out Opinion of Evaluator: D Narcotic Analgesic □ Cannabis

□ Medical

**∌** Depressant

n Hallucinogen

|                        | DRUG INFLUENCE EVALUATION  | Page_ <u>2_</u> of <u>_2</u>                          |
|------------------------|--|---|
| LOG NO.                | DRE: Officer Jim Brown   | ARRESTEE: Frances A. Adams (f)                        |
| 5. INITIAL OBSERVATION | SSS 3. BREATH TEST 4. NOTIFICATION /<br>DNS 6. MEDICAL PROBLEMS 7. PSYCHOI<br>1 10. SUSPECTS STATEMENTS 11. OPINIC | PHYSICAL 8. CLINICAL INDICATORS                       |
| 1. LOCATION: DRE e     | xamination room 4th District, Arizona Depa   | rtment Public Safety                                  |
| 2. WITNESS: Arresting  | Officer - Sgt. R. Hohn #2345 Arizona De  | partment of Public Safety                             |
| 3. BREATH TEST: W      | riter administered GCI breath test to Adam   | s, the result was 0.00%                               |
| 4. NOTIFICATION / I    | NTERVIEW of ARRESTING OFFICER  | •   |
| 5. INITIAL OBSERVA     | ATIONS: Writer observed subject seated ne  | xt to the breath test instrument, her head was tilted |
| forward, her eyes wer  | e closed, her breathing was deep but slow. S   | The responded slowly to my questions and her speech   |
| was slow and slurred.  |  | ·   |
| 6. MEDICAL PROBLE      | EMS: None noted or stated  |   |
| 7. PSYCHOPHYSICA       | L TESTS:   |   |
|                        |  |   |
| 8. CLINICAL INDICA     | TORS:  |   |
|                        | ·  |   |
| 9. SIGNS of INGESTI    | ON: None were evident  |   |
| 10. STATEMENTS: Su     | bject stated that she was very sleepy, and de  | enied taking any medicine or drugs.                   |
| 11. OPINION of EVAL    | UATOR: In my opinion Frances A. Adam   | s is under the influence of                           |
| and unable to opera    | te a vehicle safely  |   |
| 12. TOXICOLOGICA       | L SAMPLE: Subject agreed to provide a bl   | ood sample.   |
| 13. MISCELLANEOU       | S:   |   |
|                        |  |   |
|                        |  |   |
| *                      |  |   |

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**Drug Influence Evaluation** 0019 o Injury □ Property Arresting Officer (Name, ID No.) <del>43</del>210 T. W. Tower, m Sam Breath Results: 0.00 Refused Chemical Test O Urine Date Examined/Time/Location Instrument # 1234 19, 2000 2230 Miranda Warning Given: NYes ONo What have you eaten today? When?
MIKShake 3hrs ago Time of last drink? No Nothing Tower, T.W. Are you sick or injured? Are you diabetic or epileptic? C Yes # No Do you have any physical defects? I Yes PNo Are you under the care of a doctor or dentist? 🗆 Yes 🛊 No Are you taking any medication or drugs? 🗆 Yes 🚜 No Cooperative Coordination Breath Canct C

Eyes: © Reddened Conjunctiva

Normal © Bloodshot © Watery Blindness; **≯**None □LEye □REys Kapid Able to follow stimulus: ♣ Yes ♡ No Eyelids: Corrective Lens: Pupil Size: Equal Normal □ Droopy □ Glasses □ Contacts, if so □ Hard □ Soft □ Unequal (explain) COVALCO to 104 Right Eye Vertical Nystagmus? © Yes **⊯**No Left Eye HGN 108 No Nο Lack of Smooth Pursuit Convergence Left Eye 2246 No Max, Deviation Same. Angle of Onset Cannot Keep Balance Starts Too Soon R Sways While Balancing Арргах. 3 0. Nine 2" Nine Stops Walking Misses Heel-Toe Steps Off Line D Hopping Raisea Arms 6 Puts Foot Down Actual Steps Take Cannot Do Test (Explain) Describe Turn Internal Clock As instructed Loafers 15 Estimated At 30 Sec. Nasal Area Kedness runny Mose Darkness Direct Pupil Size Room Light O Right △ Left Left Eye 6.5 Draw lines from spot touched Oral Cavity dear Right Eye 6.0 Rebound Dilation Hippus O Yes OYes WNo 5/0W Temp. Blood Pressure Muscle Tone: Normal O Flaccid O Rigid Attach Photos Of Fresh Puncture Marks Where Were The Drugs Used? (Location) Time of Use? How Much? What Medicine or Drug Have You Been Using? No No Answer No Aaswer Date:Time of Arrest 2000 Member Signature (Include Rank 2200 ID No. 8889 O Stimulant Opinion of Evaluator: O Rule Out O Medical □ Alcohol □ Inhalant O Hallucinogen O Narcotic Analgesic □ Depressant

|   | The state of the s |
|---|--|
| DRUG INFLUENCE EVALUATION   | Page_ <u>2_</u> of _2  |
| DRE: Sgt. Clark John  | ARRESTEE; Sam B. Baker   |
| ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS 7. PSYCHO<br>N 10. SUSPECTS STATEMENTS 11. OPINIC | PHYSICAL 8. CLINICAL INDICATORS  |
| Examination room 3rd District Capitol PD  |  |
| g Officer - Sgt. T. W. Tower #3210 Capitol  | PD and Sgt. Toby Dyas, Tempe Police Department   |
| riter observed Sgt. T. W. Tower administer  | a breath test to Baker, the result was 0.00%   |
| INTERVIEW of ARRESTING OFFICER  | ti   |
|   |  |
| ATIONS: Writer observed subject standing  | next to the breath test instrument. He repeatedly  |
| m foot to foot, and scratched his face and he   | ad. He was perspiring heavily, and appeared  |
| jittery   |  |
| LEMS: None noted or stated  |  |
| AL TESTS:   |  |
|   |  |
| ATORS:  |  |
|   |  |
| TON: Reddened nasal area.   |  |
| Subject denied taking any medicine or dro   | igs.   |
| LUATOR: In my opinion Sam B. Baker is   | under the influence of   |
| ate a vehicle safely  |  |
| AL SAMPLE: Subject agreed to provide a b  | olood sample.  |
| US:   |  |
|   | ·  |
|   |  |
|   | •  |
|   | DRE: Sgt. Clark John  ESS 3. BREATH TEST 4. NOTIFICATION / ONS 6. MEDICAL PROBLEMS 7. PSYCHO 10. SUSPECTS STATEMENTS 11. OPINIO Examination room 3rd District Capitol PD 3 Officer - Sgt. T. W. Tower # 3210 Capitol riter observed Sgt. T. W. Tower administer INTERVIEW of ARRESTING OFFICER ATIONS: Writer observed subject standing m foot to foot, and scratched his face and he jittery  LEMS: None noted or stated AL. TESTS:  TON: Reddened nasal area. Subject denied taking any medicine or dra LUATOR: In my opinion Sam B. Baker is ate a vehicle safely AL SAMPLE: Subject agreed to provide a be-  |

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Drug Influence Evaluation Rolling Log No. Evaluator □ None Recorder/Witness Crash: D Property D Injury O Fatal Arrestee's Name (Last, First, MI) Race Arresting Officer (Name, ID No.) 5083 WPD CHARLES, MARY C 6/3/972 SHELMAN, Date Examined/Time/Location Breath Results: □ Refused Urine ABlood EXAMINATION ROOM Chemical Test Instrument# .09 D Refused Th DISTRICT 0045 Have you been drinking? How much ? Time of last drink? Miranda Warning Given: What have you eaten today? 8¥Yes □ No When? BY: SHERMAN, P122A CASTNISHT JUST A COUPLE OF BEERS □ Yes #ENo Are you sick or injured? Are you diabetic or epileptic? When did you last sleep? How long? U Yes \$\$No LAST NISHI Do you have any physical defects? O Yes - 28-No Are you under the care of Do you take insulin? a doctor or dentist? Tyes KNo Are you taking any medication or drugs? TYes O No Attitude Coordination / STALL-ERING-COOPERATIVE BIRTH CONTROL PILLS Breath MODERATE ODOR OF AL FLUSHED Speech Eves: ☐ Reddened Conjunctiva Tracking: D Normal & Bloodshot & Watery X None OLEye OREye ₩ Equal O Unequal SL URRED Able to follow stimulus: A Yes O No Byelids: Corrective Lens: Pupil Size: Equal □ Glasses □ Contacts, if so □ Hard □ Soft D Unequal (explain) D Normal ADroopy Vertical Nystagmus? □ Yes No One Leg Stand Pulse & Time HGN Left Eye Right Eye رعاري 10050 XES YRS Lack of Smooth Pursuit Convergence Right Eye Left Eye Y&S W/5 Max. Deviation Q 40° Angle of Onset Walk and Turn Test APPENDED LUBREL Letter Cannot Keep Balance Romberg Balance Starts Too Soon W Sways While Balancing Approx. Nine 2" Nine Stops Walking  $\overline{\mathcal{C}}$ Uses Arms to Balance Misses Heel-Toe ノブ Steps Off Line O Hopping Raises Arms constant Consta Puts Foot Dawn Actual Steps Taker 9 9 Cannot Do Test (Explain) Type of Footwear Internal Clock Describe Turn 40 \_Estimated At 30 Sec. Shoe S N/A LOST BALANCED/STALLERED PENNIS Darkness Room Light Direct ○ Right △ Left Left Eye 6.5 3.5 ک Draw lines from spot touched Oral Cavity CLEAR Right Eye 6.5 Hippus Rebound Dilation Reaction To Light O Yes KNo TYes KNo 520M <u>√ı`</u> (2)/3\ **/6**\ Temp <u>9</u>8.0 Blood Pressure //O Muscle Tone: O Normal OFfaccid O Rigid Attach Photos Of Fresh Puncture Marks Time of Use? Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? NOANGWER NONE, JUST MY PILL 110 ANSWER NUANSWER Time DRE Notified Eval Start Time Time Completed Date/Time of Arrest 5 0010 10 My 200 Reviewed By: Member Signature (Include Rank) o PCP □ Inhalant O Stimulant Opinion of Evaluator: D Rule Out D Alcohol O Narcotic Analgesic Cannabia □ Medical □ Depressant O Hallucinogen

|                        | DRUG INFLUENCE EVALUATION  | Page_2_of_2                                       |
|------------------------|--|---|
| LOG NO.                | DRE: Sgt, Michael Hayes  | ARRESTEE: Mary C. Charles                         |
| S. INITIAL OBSERVATION | ESS 3. BREATH TEST 4. NOTIFICATION /<br>DNS 6. MEDICAL PROBLEMS 7. PSYCHOI<br>1 10. SUSPECTS STATEMENTS 11. OPINIC | PHYSICAL 8. CLINICAL INDICATORS                   |
| 1. LOCATION: DRE E     | xamination room 4 th District Washington   | State Patrol                                      |
| 2. WITNESS: Arresting  | Officer - S. Shermann # 5083 Washington  | State Patrol and Sandy Richardson, NHTSA          |
| 3. BREATH TEST: W      | riter observed Officer Shermann administer   | a breath test to Charles, the result was 0.09%    |
| 4. NOTIFICATION / I    | NTERVIEW of ARRESTING OFFICER  | :   |
|                        |  |   |
| 5. INITIAL OBSERVA     | ATIONS: Writer observed subject in the hol   | ding area of central booking, she was staggering  |
| and stumbling, she sw  | ayed and repeatedly blinked her eyes and he  | r speech was very slurred                         |
| 6. MEDICAL PROBLE      | EMS: None noted or stated  |   |
| 7. PSYCHOPHYSICA       | L TESTS:   |   |
|                        |  |   |
| 8. CLINICAL INDICA     | TORS:  |   |
|                        |  |   |
| 9. SIGNS of INGESTI    | ON: Subject had an odor of alcoholic bever   | age oπ her breath.                                |
| 10. STATEMENTS: Su     | bject admitted she had been drinking. How  | ever, she denied taking any medicine or using any |
| drugs other than bird  | h control pills.   |   |
| 11. OPINION of EVAL    | UATOR: In my opinion Mary C, Charles i   | s under the influence of                          |
| and unable to operat   | e a vehicle safely   |   |
| 12. TOXICOLOGICAI      | L SAMPLE: Subject agreed to provide a blo  | ood sample.                                       |
| 13. MISCELLANEOUS      | S:   |   |
|                        |  |   |
|                        |  | ,   |
|                        | •  | . •   |

**Drug Influence Evaluation** Rolling Log No. DRE No 10 well, JERRY O Property O Fatal 🗅 Injury DOB Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) Sex DODGE, FRED  $\mathcal{M}$ W LAIRO, C.D. 10/13/65 Breath Results: () \_ () □ Refused Date Examined/Time/Location 574 015T Chemical Test Instrument # □ Refused 1234 Miranda Warning Given: KYes ONo What have you eaten today? Have you been drinking? How much? Time of last drink? NIA By: LAIRD, C.D. Nomal-TACOS 2-3 HRS Ato Time now? When did you last sleep?

//O'CNC/L Y/C STEAD DOY O/L

Any Boyout take insulin? Are you diabetic or epileptic? φ(N<sub>0</sub> How long? Are you sick or injured? □ Yes □Yes XNo 5H25 □ Yes XNo Do you have any physical defects? O Yes KNo Are you under the care of a doctor or dentist? • Yes Are you taking any medication or drugs? O Yes 94No Coordination J. 1718RY, SIUMBLING CARE FREE COOPERATION NORMAL Eyes: © Reddened Conjunctiva Blindness: None □ L Eye □ R Eye Tracking: Equal O Unequal Able to follow stimulus: Yes C No Eyelids: Pupil Size: **≭** Equal □ Unequal (explain) Corrective Lens: Glasses C Contacts, if so C Hard C Soft Mormal C Droopy One Leg Stand HGN Left Eye Right Eye Vertical Nystagmus? XYes □ No Pulse & Time 1.100 12305 DW Lack of Smooth Pursuit ΛЮ Convergence Left Eve Right Eye NO NO Max. Deviation 26 NONE 100 NONE Angle of Onset Walk and Turn Test Cannot Keep Balance Romberg Balance WALKED RAPIDLY Starts Too Scon Approx. Approx. 1ª Nine 2<sup>™</sup> Nine Sways While Balancing Stops Walking Misses Heel-Toe □ Uses Arms to Balance Steps Off Line 8 D Hopping Raises Arms W Actual Steps Taker Puts Foot Down 5 Cannot Do Test (Explain) Type of Footwear Describe Turn Internal Clock NA STREET Shoe S Estimated At 30 Sec. Αs TNSTRUCTED Pupil Size Room Light Darkness Direct ○ Right △ Left KEDNESS Left Eye Oral Cavity Draw lines from spot touched Right Eve CLEAR Rebound Dilation Reaction To Light Hippus Cl Yes ₽**⊘**No O Yes SION LEFT APM (XXXX PUNCTURE MOUNDS FOUR HAD PEN DOT Temp 2'9.5 Blood Pressure Muscle Tone: Normal OFlaceid ORigid Attach Photos Of Fresh Puncture Marks Comments: Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? Time of Use? ANSWE/2 NONE NO ASWERL NO ANSWE? ? Time DRE Notified Eval Start Time Member Signature (Include Rank 🗆 Inhalant O Stimulant Opinion of Evaluator: O Rule Out U Alcohol □ Narcotic Analgosic □ Cannabía © Medical D Hallucinogen O Depressant

|  | DRUG INFLUENCE EVALUATION  | Page <u>2</u> of <u>2</u>                                 |
|--|--|---|
| LOG NO.  | DRE: Lt. Jerry Tidwell   | ARRESTEE: Fred D. Dodge                                   |
| I. LOCATION 2. WITHI<br>5. INITIAL OBSERVATION | ESS 3. BREATH TEST 4. NOTIFICATION /<br>DNS 6. MEDICAL PROBLEMS 7. PSYCHOL<br>I 10. SUSPECTS STATEMENTS 11. OPINIC | INTERVIEW ARRESTING OFCR. PHYSICAL 8. CLINICAL INDICATORS |
| 1. LOCATION: DRE E                             | examination room 5th District HTD  |   |
| 2. WITNESS: Arresting                          | GOfficer - C. D. Laird #7654 HTD   |   |
| 3. BREATH TEST: Of                             | fficer Laird administer a breath test to Fred I  | Dodge, the result was 0.00%                               |
| 4. NOTIFICATION / 1                            | INTERVIEW of ARRESTING OFFICER   | k:  |
| 5. INITIAL OBSERVA                             | ATIONS: Writer observed subject at 2255 h  | nrs. In the breathalyzer room. He was smiling and         |
| joking with officer L                          | aird. Dodge's speech was rapid and loud.   | He seemed boisterous and unconcerned about being          |
| under arrest.                                  |  |   |
| 6. MEDICAL PROBL                               | EMS: None noted or stated  |   |
| 7. PSYCHOPHYSICA                               | L TESTS:   |   |
|  |  |   |
| 8. CLINICAL INDICA                             | ATORS:   |   |
|  |  | •   |
| 9. SIGNS of INGEST                             | ION: Subject had four (4) fresh puncture w   | ounds on the underside of his left forearm.               |
| 10. STATEMENTS: S                              | ubject denied taking any medicine or usin  | g any drugs. When questioned about the punsture           |
| marks he grinned ar                            | nd stated "Gee, I guess those must be mosqu  | ito bites", then laughed.                                 |
| 11. OPINION of EVA                             | LUATOR: In my opinion Fred D. Dodge i  | s under the influence of                                  |
| and unable to opera                            | ite a vehicle safely   |   |
| 12. TOXICOLOGICA                               | L. SAMPLE: Subject agreed to provide a b   | lood sample.  |
| 13. MISCELLANEOU                               | JS:  |   |
|  |  |   |
| ,  | ·  |   |
|  |  | •   |

**Drug Influence Evaluation** Rolling Log No. Evaluator UNSWORTH O None Crash: Recorder/Witness O Property . o Fatal **⊘**Injury Arresting Officer (Name, ID No.) Sex Arrestee's Name (Last, First, Mi) CRD # 2456 F--W HALL EDWARDS JOAN E Breath Results: O.D□ Refused Chemical Test O Urine ⊮Blood Date Examined/Time/Location □ Refused Instrument# 2300 CPD 1234 APRIL 1, 1996 Have you been drinking? How much? Time of last drink? Miranda Warning Given: 5 Yes D No What have you eaten today? N/A NoTHING N/A By: HALL 7 NOTHING Are you diabetic or epileptic? Time now? Are you sick or injured? When did you last sleep? □Yes ⊅No I FEEL SICK TO MY STOMACH KEMEMBER Do you have any physical defects? Are you under the care of □ Yes G No a doctor or dentist? O Yes I DON'T THINK SO Are you taking any medication or drugs? O Yes No COPPERATIVE ISORIENTED STAGGERI DAZED APPEAR ANGE NORMAL □ Reddenad Conjunctiva Blindness: Tracking: Eyes: D Reddened Conjunctiva

Normal D Bloodshot D Watery Speech ► Fqual © Unequal Prone OLEye OREye DIFFICULTY IN SPEAKING AT TIMES Able to follow stimulus: FYes O No Eyelids: Corrective Lens: Normai D Droopy O Glasses O Contacts, if so O Hard O Soft □ Unequal (explain) Left Eye Right Eye Vertical Nystagmus? □ Yes HGN Pulse & Time 1. 100 23*1*0 Νo No Lack of Smooth Pursuit Convergence Right Eye 2325 Νο Max. Deviation 2337 104 NONE Angle of Onset Cannot Keep Balance Walk and Turn T Starts Too Soon 2<sup>™</sup> Nine Sways While Balancing Stops Walking Uses Arms to Balance Misses Heel-Ton 11111 Steps Off Line TD All STEP5 13 Hopping Raises Arms 90 100 Puts Foot Down Actual Steps Taken Cannot Do Test (Explain) KEPT Internal Clock
90 Esti Describe Turn Estimated At 30 Sec. Ask what to do BACKWARDS THANKO Room Light ○ Right △ Left Left Eye 8.5 6.0 6.0 Draw lines from spot touched Oral Cavity Right Eye 8.5 6.0 LIEAR. .D Reaction To Light Hippus Rebound Dilation E-No ☐ Yes ☐ No NORMAL **(2)** (4) 100 D . Blood Pressure, Muscle Tone: O Normal O Flaccid BRigid Attach Photos Of Fresh Puncture Marks Comments: ALMS YERY RIGIA Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? No ANSWELL Nο ANSWER-Vo ANSWEA NOTHING Eval Start Time 3200 Time DRE Notified 2245 2235 11 No. 5408 Reviewed By PCP O Inhalant 🗅 Rule Out n Alcohol O Stimulant Opinion of Evaluator: O Narcotic Analgesic C Cannabis □ Medical □ Depressant Hallucinogen

|                       | DRUG INFLUENCE EVALUATION   | Page <u>2</u> of <u>2</u>                                |
|-----------------------|---|--|
| LOG NO.               | DRE: Officer J. Unsworth  | ARRESTEE: Joan E. Edwards                                |
| S INITIAL OBSERVATION | ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS -7. PSYCHO<br>4 10. SUSPECTS STATEMENTS -11. OPINIO | PHYSICAL 8, CLINICAL INDICATORS                          |
| 1. LOCATION: DRE      | Examination room 5th District CTD   |  |
| 2. WITNESS: Arresting | g Officer - Ian Hall # 3456 CTD   |  |
| 3. BREATH TEST: O     | fficer Hall administer a breath test to Joan I  | E. Edwards, the result was 0.00%                         |
| 4. NOTIFICATION /     | INTERVIEW of ARRESTING OFFICER  | t: Writer was contacted by Officer Hall                  |
| at 2255 hrs. Officer  | Hall stated he had just arrested a "very wei  | rd" woman. He further stated "she's either               |
| on drugs or crazy."   | Her vehicle was stopped in the intersection   | of Studdard Ave. and Haversat Dr., she was               |
| standing on the hood  | l of her car waving her arms and screaming  | incoherently at passing traffic.                         |
| 5. INITIAL OBSERV     | ATIONS:   |  |
| 6. MEDICAL PROBL      | EMS: Subject stated indicated some nausea   |  |
| 7. PSYCHOPHYSICA      | al tests:   |  |
|                       |   |  |
| 8. CLINICAL INDICA    | ATORS:  | ·  |
|                       |   |  |
| 9. SIGNS of INGEST    | ION: None were evident.   | · .  |
| 10. STATEMENTS: S     | Subject denied taking any medicine or usin  | g any drugs.   |
| 11. OPINION of EVA    | LUATOR: In my opinion Joan E. Edwards   | s is under the influence of                              |
| and unable to oper    | ate a vehicle safely  |  |
| 12. TOXICOLOGICA      | AL SAMPLE: Subject agreed to provide a b  | lood sample.   |
| 13. MISCELLANEOU      | JS: Subject was transported to the psychia  | tric ward, at the county jail, for continued monitoring. |
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SESSION XVI°

PHENCYCLIDINE (PCP)

# SESSION XVI PHENCYCLIDINE (PCP)

Upon successfully completing this session, the participants will be able to:

- Explain a brief history of PCP.
- o Identify common drug names and terms associated with PCP.
- o Identify common methods of administration for PCP.
- Explain the symptoms, observable signs and other effects associated with PCP.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with PCP.
- o State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of PCP.
- O Correctly answer the "topics for study" questions at the end of this Section.

#### A. Overview of PCP

The formal chemical name for this drug is Phenyl Cyclohexyl Piperidine, from which the initials PCP are derived. "Phencyclidine" is simply a contracted form of the actual chemical name.

PCP, or Phencyclidine forms a distinct category of its own, because the effects it produces are unlike those of any other category. In some respects, PCP acts like an hallucinogen; and, it is frequently classed as an hallucinogen in medical texts and scientific/research reports. In other respects, it acts like a stimulant, and in still other respects it is similar to a depressant.

PCP was first developed in the 1950's as an intravenous anesthetic. It was patented and marketed in 1963 under the trade name Sernyl. Within a few years, as evidence of PCP's very undesirable side effects accumulated, its use as an anesthetic for humans was discontinued. In 1968, it was re-patented as a veterinary anesthetic under the trade name Sernylan.

Although we speak of PCP as forming a separate category of drugs all by itself, there actually are more than one hundred slightly different drugs that belong to this category. These drugs are the <u>analogs</u> of PCP. In this case, an analog is a chemical that is similar to the drug in terms of molecular structure or psychoactive effects. A person under the influence of PCP likewise cannot be distinguished from someone who is under the influence of a PCP analog. When a DRE concludes that a suspect is impaired by Phencyclidine, his or her report should state that "...the subject is under the influence of PCP or an analog of PCP".

Another drug in this category is <u>Ketamine</u>, a drug used as an anesthetic in pediatric surgery and burn victims. Not all laboratories that perform blood and urine analyses are capable of detecting all of the known analogs of PCP; in fact, some of the analogs can be detected by few if any laboratories. Thus, a DRE should not be surprised if a negative or none detected toxicological report comes back for a suspect the DRE believed was impaired by Phencyclidine. It is possible that the suspect had used an analog that the particular lab couldn't detect.

Among PCP's least desirable side effects are delirium, visual disturbances and hallucinations and, occasionally, violence. Some evidence of long term memory disorders and psychological disturbances resembling schizophrenia has also been linked to PCP.

The following are extreme, but not unique, examples:

o One young man methodically pulled out his own teeth, with a pair of pliers.

- o Another drank rat poison, hoping to kill the rats that he imagined were infesting his body.
- o A third suffered hallucinations of unbelievably grotesque monsters, and gouged out his own eyes to avoid seeing the monsters.
- o A 26 year old nude woman in Washington, DC repeatedly plunged a butcher knife into her own eye, chest, groin and abdomen. She then threatened a police officer with the knife and was shot to death. (Washington Post, March 7, 1988)

PCP is relatively easy to manufacture, using readily available chemicals. The formula for producing PCP has been widely publicized. However, although easy to make, it is also dangerous to make. A lack of caution in the production process could release the same deadly gas that is used for executions in gas chambers. Also, liquid PCP is especially dangerous because it can be absorbed through the skin.

PCP has numerous "street names". The chart at the bottom of the page lists some of the more common "street names" for PCP.

Many PCP users ingest their drugs by <u>smoking</u>. PCP can be applied in either liquid or powder form to a variety of vegetable or leafy substances, such as mint leaves, parsley, oregano, tobacco or marijuana. The substances then can be smoked in a pipe or cigarette. Because PCP smoke is very hot and can irritate the mouth and tongue, many smokers prefer to use mint leaves and similar material to cool the smoke. For the same reason, PCP smokers who adulterate commercial cigarettes prefer to use mentholated brands, such as "Kools" and "Shermans".

Powdered PCP can also be <u>snorted</u> or <u>taken orally</u>. Liquid PCP can be injected, or administered directly to the eyes, via an eyedropper. PCP can also be ingested transdermally, i.e., through the skin.

#### B. Possible Effects of PCP

PCP produces impairments and other observable effects on the human mind and body that are a combination of effects produced by CNS Depressants, CNS Stimulants and Hallucinogens.



|            | SOME COMMON     | I STREET NAMES FO | R PCP                 |
|------------|-----------------|-------------------|-----------------------|
| ACE        | CRYSTAL         | MONKEY DUST       | ELEPHANT TRANQUILIZER |
| AMOEBA     | KRYSTAL         | GREEN             | HORSE TRANQUILIZER    |
| TRANK      | CRYSTAL JOINT   | GREEN LEAVES      | ANIMAL TRANQUILIZER   |
| JET FUEL   | KJ (or CJ)      | KOOLS             | SUPER WEED            |
| JUICE      | EMBALMING FLUID | SUPER KOOLS       | ZOMBIE WEED           |
| DUST       | TIC TAC         | SHERMS            | PEACE WEED            |
| ANGEL DUST | PEACE           | SUPER GRASS       | MINT WEED             |
| DEVIL DUST | PAZ             | KILLER WEED       | LOVELY                |

As with many other drugs, regular users of PCP may have developed a tolerance to the drug that masks some of the observable signs of PCP's effects.

PCP has been called a "dissociative anesthetic". That is to say, it cuts off the brain's perceptions of the senses. PCP users often feel that their heads are physically separated from their bodies. They sometimes report feeling that they are dead, and that their heads are floating away.

#### C. Onset and Duration of PCP's Effects

When <u>smoked or injected</u>, PCP's effects generally are felt within 1-5 minutes. When <u>snorted</u>, the onset occurs in about 2-3 minutes. The effects reach their peak in about 15-30 minutes. The effects generally last 4-6 hours, but they can last somewhat longer. If taken orally, PCP's effects are generally felt in 30-60 minutes.

# D. Signs and Symptoms of PCP Overdose

In addition to the bizarre, violent, and self-destructive behavior discussed previously, persons severely intoxicated by PCP may exhibit definite and extreme symptoms signifying a medically dangerous condition. Some examples are:

- o A deep coma, lasting for up to 12 hours.
- o Seizures and convulsions.
- o Respiratory depression.
- o Possible cardiac problems. Lower doses of PCP may trigger a heart attack if the user had some pre-existing condition, predisposing them to possible cardiac problems.
- Eyes generally open and staring blankly.

There is also some evidence that prolonged use of PCP can lead to psychosis, which can be permanent.

### E. Expected Results of the Evaluation

When a person under the influence of PCP is examined by a drug recognition expert, the following results can be expected.

Horizontal Gaze Nystagmus will be present, generally with a very early angle of onset.

Vertical Gaze Nystagmus will usually be present.

Lack of Convergence will be present.

Pupil size will be normal.

Pupil's reaction to light will be normal.

Pulse rate will be up. .

Blood pressure will be up.

<u>Temperature</u> will be up. It is not uncommon for persons under the influence of PCP to remove most or all of their clothing in an effort to cool down.

<u>Injection sites</u> usually won't be found, although some PCP users do inject the drug.

#### General Indicators:

- o Slow, slurred speech
- o Disorientation
- o Loss of memory
- o Agitation, excitement
- o Blank stare
- o Passivity -- but the user may abruptly turn violent if confronted with a threatening situation.
- o Non-communicative
- o Rigid Muscle Tone
- o Loss of a sense of personal identity
- o Sensory distortions
- o Auditory hallucinations
- o A feeling of extreme heat, profuse perspiration.
- o Increased pain threshold.
- o Chemical odor (of Ether, used in preparation of PCP)
- o Cyclic behavior

## Topics for study

- 1. What was the original purpose for which PCP was first patented and marketed?
- 2. Why do many PCP smokers prefer to adulterate mentholated cigarettes with PCP?
- 3. What is Ketamine?
- 4. What does the term "dissociative anesthetic" mean?
- 5. "Phencyclidine" is a contraction of what three words?

XVI-5

**Drug Influence Evaluation** Rolling Log No. Evaluator GEORGE 4265 メヘエー MARK Recorder/Witness □ Property D Fatal □ Injury DOB Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) Sex **# 1832** BROWN A 9.6.59 M MY57 H ROSS, ROBERT Date Examined/Time/Location Breath Results: □ Refused Chemical Test □ Urine KBlood NYSP Instrument# O Refused 474 DEC 8, 2000 2.145 HRS 0.00 DISTRICT 12828 Miranda Warning Given: DKYes □ No What have you eaten today? When? Have you been drinking? How much? Time of last drink? By: Brown, A ΔM "DGIHTOGI" CHICKEN TE12 Are you diabetic or epileptic? Time now? | When did you last sleep? □Yes XNo How long? Are you sick or injured? □ Yes KNo 6405 YESTERDAY Do you take insulin? □ Yes X No Do you have any physical defects? If Yes INO Are you under the care of a doctor or dentist? O Yes W No Are you taking any medication or drugs? O Yes No Attitude Coordination POOR 574665R120 PASSIVE Breath COOPERATIVE Face FLOSHED EWEATY CHEMICAL うりりゅう □ Reddened Conjunctiva Tracking: Speech None DLEye DREye KEqual □ Unequal Normal | Bloodshot | Watery Stow Fibra SILLED. Corrective Lens: None Glasses Contacts, if so Chard Coft Equal Able to follow stimulus: XYes 11 No Evelide Pupil Size: O Unequal (explain) Normal Droopy One Leg Stand HGN Left Eye Right Eye Vertical Nystagmus? XYes □ No Pulse & Time **O@** 1. 100 / 2150 Lack of Smooth Pursuit ye s YES Convergence Right Eye 2, 108 / 2204 Max. Deviation YE.5 ye s r166160/18 Angle of Onset TEST STOUGED Walk and Turn Test Cannot Keep Balance TEST STOPPED Romberg Balance Starts Too Scon\_ Аррюх. Approx. 1st Nine 2nd Nine Sways While Balancing Stops Walking Misses Heel-Top Uses Arms to Balance ALL Steps Off Line o O Hopping Raises Arms 10 Puts Foot Down Actual Steps Takes CIRCULAR SWAY Cannot Do Test (Explain) Type of Footwear Internal Clock Describe Turn SWINGLED IN ONE ABRUPT MOTHENS, LOST 45 Estimated At 30 Sec. N/A TENUIS SHOES BALANCE Pupil Size Room Light Darkness Direct Nasal Area O Right △ Left Left Eve Draw lines from spot touched 3.5 4.0 6.0 Oral Cavity CHEMICAL Right Eye 3.5 0000 00 BILEATH 4.0 **ن**, ن Hippus Rebound Dilation Reaction To Light ΧNο □Yes (No NORMAL (2)/1 4 NO VISIBLE MARILS Blood Pressure 146 1 100 Temp Muscle Tone: U Normal □ Flaccid A Rigid Attach Photos Of Fresh Puncture Marks Comments: ARMS JEDY RIGID How Much? Time of Use? Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using?  $\sim$ A --- --- 2 NOTH NA ۵۵ منځينډ<u>ه</u> Date/Time of Arrest Time DRE Notified Eval Start Time Time Completed ಖು೦೮ アファウ ID No. Member Signature (Include Rank) Reviewed By: 1-MEMOR # 1003E ☐ Stimulant □ Rule Out □ Alcohol Opinion of Evaluator: □ Inhalant □ Medical □ Depressant O Hallucinogen Narcotic Analgesic □ Cannabis

|                        | DRUG INFLUENCE EVALUATION   | Page <u>2</u> of <u>2</u>                                  |
|------------------------|---|--|
| LOG NO.                | DRE: Officer John Blea  | ARRESTEE: D. Schroeder                                     |
| C TAITHTAT ODGEDVATE   | ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS 7. PSYCHO<br>N 10. SUSPECTS STATEMENTS 11. OPINIO | PHYSICAL 8, CLINICAL INDICATORS                            |
| 1. LOCATION: Exami     | ination of D. Schroeder took place in the DR  | RE room, Denver PD Headquarters                            |
| 2. WITNESS: Arresting  | g Officer - Officer Mark George   |  |
| 3. BREATH TEST: O      | officer George administered a breath test to S  | Schroeder at 2300 hours, the result was                    |
| 0.04%. At this time    | subject admitted she had consumed some b  | eer.   |
| 4. NOTIFICATION /      | INTERVIEW of ARRESTING OFFICE   | R: Writer was contacted by radio at 2245 hrs. and          |
| advised to return to   | Headquarters to conduct a DRE evaluation.   | Officer George informed me that he had observed            |
| the subject fail to ol | bey a stop sign. At the time of the stop Schr   | oeder was smoking a cigarette which gave off a strong      |
| chemical odor. Ado     | ditional examination of the cigarette indicate  | ed the possibility of some form of string in the middle.   |
| 5. INITIAL OBSERV      | ATIONS: Writer observed subject sitting of  | quietly in the DRE room, staring at the floor, and         |
| taking no notice of    | the activity around her. It was necessary to  | instruct the subject twice to raise her head before she    |
| complied.              |   |  |
| 6. MEDICAL PROB        | LEMS: None noted or stated  |  |
| 7. PSYCHOPHYSIC        | AL TESTS: Ms. Schroeder was very slow   | in responding to all instructions during this portion of   |
| the examination. R     | omberg Balance: Subject swayed approxim   | nately 3" in a circular motioin and estimated 40 seconds   |
| as 30 seconds. Wa      | lk and Turn: Subject lost balance during the  | instructions, took the wrong number of steps,              |
| turned abruptly, ste   | pped off the line, and repeatedly used her a  | rms for balance. On the return she never touched heel      |
|                        |   | ry stiff and rigid. One Leg Stand: Subject fell after only |
|                        |   | ose on each attempt and on one attempt missed lier         |
| nose entirely          |   |  |
| 8. CLINICAL INDIC      | CATORS: Subject exhibited immediate ons   | et of HGN, vertical nystagmus, and lack of                 |
|                        | od pressure, pulse and body temperature we  | •  |
|                        | TION: There was a strong chemical odor or   | <del></del>  |
|                        |   | peer" She did not respond to the questions regarding       |
|                        | ons concerning the cigarette.   |  |
|                        |   | s under the influence of Alcohol and Phencyclidine, or     |
|                        | able to operate a vehicle safely.   |  |
|                        | CAL SAMPLE: Subject agreed to provide   | a blood sample.  |
|                        | NAME  |  |

13. MISCELLANEOUS: The confiscated cigarette was sent to the laboratory for analysis.

Drug Influence Evaluation Rolling Log Jo OZZZ Evaluator Blea, John Crash: □ Property o Fatal 🛘 Injury Mark beorge Arresting Officer (Name, ID No.)

Mark George Arrestee's Name (Last, First, MI) Sex W Schroederis Breath Results: 0.041 Refused Date Examined/Time/Location Instrument # 1234 O Refused Central Testing 5-2-2000 2300 Miranda Warning Given: XYes ONo
By: Blea, John Time of last drink? Have you been drinking? How much? What have you eaten today? When? 5 PM Beer 5 pm Pizza Are you diabetic or epileptic? When did you last sleep? How long? Are you sick or injured? O'Yes & No 8PM Last night Do you have any physical defects? O Yes O No Do you take insulin? a doctor or deptiat? • Yes No response Attitude Withdrawn, non responsive ponse Coordination . A Are you taking any medication or drugs? 

Yes. No passive. Breath Chemical Odor Eyes: © Reddened Conjunctiva
Normal © Bloodshot © Watery Blindness: Speech S/ow, Slurred, attimes ₽ Equal □ Unequal **▶**None □ L Eye □ R Eye did not respond Eyelids: Pupil Size: ÆEqual O Unequal (explain) Corrective Lens: None

C Glasses C Contacts, if so C Hard D Soft Normal Droopy Vertical Nystagmus? KYes ONo Right Eye HGN Left Eye Palse & Time Not. , 120, 2310 4es Yes Convergence Lack of Smooth Pursuit GIVEN Left Eye Right Eye Yes Max. Deviation . Immediate Immediate Angle of Onset Subject fell and tai Cannot Keep Balance Walk and Turn Test stopped. Starts Too Soon Approx. 1st Nine 2nd Nine Sways While Balancing Stops Walking . Walked stif Misses Heel-Toe Uses Arms to Balance 1/sta arms locked. Steps Off Line O Hopping Raises Arms Constant V D Puts Foot Down Actual Steps Taken Describe Turn Swive led abruptly Cannot Do Test (Explain) Type of Footwear Loafers Staggered to the left. 40 Estimated At 30 Sec. Darkness Direct Room Light Pupil Size ○ Right △ Left Left Eve 3.5 4.0 Draw lines from spot touched Right Eye 3.5 Rebound Dilation Reaction To Light Hippus □ Yes □Yes ÆNo Normal n No MOHT ARM Temp 100.5 Blood Pressure\_ Muscle Tone: D Normal D Flaccid Attach Photos Of Fresh Puncture Marks Comments Arms & Neck very rigid Time of Use? Where Were The Drugs Used? (Location) How Much? What Medicine or Drug Have You Been Using? No response No response No response Time DRE Notified 2245 Date/Time of Arrest

May 2, 2000

Member Signature (Include Rank) ID No. 1176 🖰 Inhalant 🗅 Alcohol □ Stimulant Opinion of Evaluator: a Rule Out O Narcotic Analgesic . □ Cannabis O Depressant O Hallucinogen

|  | DRUG INFLUENCE EVALUATION                             | Page <u>2</u> of <u>2</u>                          |  |
|--|---|--|--|
| LOG NO.  | DRE: Sgt. Mark George                                 | ARRESTEE: Robert H. Ross                           |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |  |  |
| 1. LOCATION: Examination of Robert H. Ross, took place in the DRE room, NYSP Tarrytown   |   |  |  |
| ····   | 2. WITNESS: Arresting Officer - Trooper Alan D. Brown |  |  |
|  | roper Brown administer a breath test to Ros           | s at 2135 hours, the result was 0.00%              |  |
| 4. NOTIFICATION /  | INTERVIEW of ARRESTING OFFICEI                        | R: Writer was contacted by radio at 2120 hrs. and  |  |
|  |   | or. Brown informed me that he had observed Ross    |  |
|  |   | ely 10 mph. Brown stated that the subject appeared |  |
|  | ot state where he was or where he had come            | •  |  |
|  |   | hrs. He appeared dazed and disoriented, he had a   |  |
|  | onded very slowly (approx. 5 - 10 seconds of          |  |  |
|  | LEMS: None noted or stated                            |  |  |
|  |   | ayed approximately 3" in a circular motion and     |  |
| estimated 45 seconds as 30 seconds. Walk and Turn: Subject started walking immediately, lost balance during the  |   |  |  |
| instructions stended   | off the line, stopped walking, repeatedly us          | ed his arms for balance, and missed heel to toe    |  |
| One Leg Stand: Subject unable to complete the test using either foot. Finger to Nose: Subject missed   |   |  |  |
| tip of his nose on each attempt and his arm movements were very rigid.   |   |  |  |
| 8. CLINICAL INDICATORS: Subject exhibited immediate onset of HGN, vertical nystagmus, and lack of  |   |  |  |
| convergence. Blood pressure, pulse and body temperature were above the normal range  |   |  |  |
| 9. SIGNS of INGESTION: There was a strong chemical odor on the subject's breath.   |   |  |  |
|  |   |  |  |
| <ul><li>10. STATEMENTS: Subject stated that he did not use any drugs.</li><li>11. OPINION of EVALUATOR: In my opinion Robert H. Ross is under the influence of Phencyclidine, or an</li></ul>  |   |  |  |
|  |   |  |  |
| analog, and unable to operate a vehicle safely   |   |  |  |
| <ul><li>12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.</li><li>13. MISCELLANEOUS: Three (3) discolored filtered cigarettes in a "Kool" box were found in the subject's right shirt</li></ul>  |   |  |  |
|  |   |  |  |
| pocket, and were   | sent to the laboratory for analysis.                  |  |  |

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SESSION XVII
NARCOTIC ANALGESICS

#### SESSION XVII NARCOTIC ANALGESICS

Upon successfully completing this session, the participants will be able to:

- o Explain a brief history of the Narcotic Analgesic category of drugs.
- o Identify common drug names and terms associated with the category.
- o Identify common methods of administration for this category.
- o Explain the symptoms, observable signs and other effects associated with this category.
- o Explain the typical time parameters, i.e., onset and duration of effects, associated with this category.
- o State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- o Explain the procedures to examine for injection sites.
- o Correctly answer the "Topics for Study" questions at the end of the section.

#### A. Overview of Narcotic Analgesics

There are two subcategories of Narcotic Analgesics. The first subcategory consists of the <u>Opiates</u>. The second subcategory are the <u>Synthetics</u>.

The Opiates are drugs that either contain or are derived from opium. There are two basic types of opiates, alkaloids and derivatives. An "alkaloid" is a substance that is found in another substance, and can be isolated from it. For example, Morphine, Codeine and Thebaine are all found in opium and are natural alkaloids. Opium Derivatives are produced by chemically treating the natural alkaloid. Heroin is probably the most famous Opium Derivative, but there are a number of other important drugs that are produced in this manner. The source for both the Natural Alkaloids and the Opium Derivatives is a particular species of poppy plant, called the "opium poppy", or papaver somniferum (Latin for "the poppy that brings sleep"). Opium is the sap from the seed pods of that plant.

The second subcategory of Narcotic Analgesics has nothing to do with the opium poppy. This subcategory consists of the <u>Synthetics</u>, which are produced artificially from a variety of non-opiate substances. One of the best known of these is Methadone, a drug used as a substitute for Heroin in drug treatment programs. The synthetics do not derive from opium at all, but have similar or identical effects.

All Narcotic Analgesics share three distinguishing characteristics:

- o they will relieve pain (this is what "analgesic" means);
- o they will produce withdrawal signs and symptoms, when the drug is stopped after chronic administration;
- o their use will suppress the withdrawal signs and symptoms of chronic morphine administration. (This means that the various Narcotic Analgesics can be substituted for each other to relieve withdrawal symptoms.)
- 1. The chart on the next page exhibits the names of some Natural Alkaloids and Opium Derivatives and shows their derivation from opium.

<u>Powdered opium</u>, also known as "smoking opium", is not really a derivative, but rather is a simple refinement of raw opium. (In much the same sense, "refined sugar" is still sugar.) Powdered opium is used medically to treat diarrhea. As a medicine, it is taken orally. As a drug of abuse, it is smoked. It remains popular as a drug of abuse among some Asian American communities.

<u>Morphine</u> is the principal Natural Alkaloid of opium. It was first isolated from opium in 1805. Morphine is used medically to suppress severe pain, for example, with terminal cancer patients. It is highly addictive.

Codeine is another Natural Alkaloid of opium, separate from morphine. Codeine was first isolated in 1832. It is used medically to suppress coughing or minor pain. Although codeine is an analgesic, its pain killing ability is much weaker than morphine's. Codeine definitely is addictive. NOTE: the technical, or generic, name for codeine is Methylmorphine.

Heroin is an Opium Derivative that is produced by chemically treating Morphine. Heroin is the most commonly abused illicit Narcotic Analgesic. Heroin was first produced in 1874, in the hope that it would prove to be a non addictive substitute for morphine. Heroin was approved for general use by the American Medical Association in 1906. However, its importation and manufacture have been illegal in this country since 1925. NOTE: The technical, or generic, name for heroin is <u>Diacetyl Morphine</u>.

<u>Dilaudid</u> is another Opium Derivative that also is produced from Morphine. Dilaudid sometimes is called "drug store heroin", because it is commercially available. It is used medically for short term relief of moderate to severe pain, and to suppress severe, persistent coughs. Dilaudid has the same addictive liabilities as does heroin or morphine. NOTE: The technical, or generic, name for Dilaudid is <u>Hydromorphone Hydrochloride</u>.

<u>Hycodan</u> is an Opium Derivative that "descends" from the Natural Alkaloid, Codeine. The technical name for Hycodan is Hydrocodone. It is used medically to treat coughs. Sometimes Hycodan is abused by addicts who are unable to obtain heroin or morphine.

Percodan is another Opium Derivative that is produced by chemically treating Codeine. The technical name for Percodan is Oxycodone. Percodan is one of the most commonly prescribed Narcotic Analgesics. It is somewhat less addictive than morphine, but more addictive than codeine. Another prescriptive drug, called "percobarb" is a combination of Percodan and barbiturate. Thus, someone who takes percobarb is a polydrug user, and will experience a combination of the effects of Narcotic Analgesics and CNS depressants.

Metopon derives from thebaine, which is another Natural Alkaloid of opium. Metopon is chemically similar to morphine, and is used to relieve chronic pain (such as terminal cancer).

2. Some common synthetic opiates include the following.

<u>Demerol</u> is one of the most widely used synthetic opiates for relief of pain and for sedation. It was first produced in 1939. The technical name for Demerol is Meperidine. Demerol is the most frequently abused Narcotic Analgesic among the medical profession.

Methadone was developed in Germany during World War II. Methadone's effects are similar to morphine's, although methadone's effects develop more slowly and last longer. Methadone was developed because of wartime shortages in Germany of morphine. The primary advantage of Methadone is that it cannot be injected, and it has a much longer duration of effects than Heroin. Also, methadone's withdrawal symptoms are slower and milder than are morphine's. It is for these reasons that methadone is used extensively in "maintenance programs" as a substitute for heroin for addicts undergoing treatment. The technical name is <u>Dolophine</u>.

<u>Numorphan</u> is a powerful analgesic with the same addictive properties as morphine. It is used medically for relief of chronic pain. It is sold in ampules (injection) and in suppositories.

The <u>Fentanyls</u> include several hundred "designer drug" analogs of morphine. "Sublimaze" is a brand name for fentanyl. It is a Schedule II drug. It is frequently found in overdose situations. For example, "Tango and Cash" and "Goodfellas," which contained fentanyl, were sold in New York City in 1990 as Heroin. Many fatal overdoses occurred as a result. Fentanyls were first developed in 1965. The principal abused fentanyl is "three-methyl fentanyl". This analog is <u>very</u> powerful, and can be fatal in very small amounts.

<u>MPPP</u> is an illegally manufactured analog of Demerol. MPPP is powerfully addictive, and thus is very dangerous in its own right. What makes it even more dangerous is the fact that the "home chemists" who produce it often make a mistake that causes the MPPP to become contaminated with a substance called <u>MPTP</u>, a chemical that produces a paralysis similar to Parkinson's Disease.

<u>Darvon</u> is a synthetic opiate of relatively low analgesic potency, and relatively low addiction liability. Technical Name is Propoxyphene. It is fairly commonly prescribed.

3. Methods of administration vary from one Narcotic Analgesic to another. Methods of ingestion include: oral, smoking, injection, snorted, suppositories and transdermally. An example is Heroin which can be injected, snorted or smoked.

## B. Possible Effects of Narcotic Analgesics

However, the effects that a Narcotic Analgesic user will experience and exhibit depend on the <u>tolerance</u> that the user has developed for the drug. As a person develops tolerance for a drug, that person will experience diminishing effects if they continues to take the same dose of the drug. Conversely, if the person wishes to continue to experience the same effects, he or she will have to take steadily larger doses as tolerance develops.

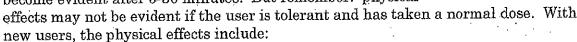
People develop tolerance to Narcotic Analgesics fairly rapidly. A Narcotic Analgesic user who has developed tolerance and who has taken his or her "normal" dose of the drug may exhibit little or no evidence of intellectual or physical impairment. For example, an heroin addict who has injected his or her usual dose may be able to operate a car properly and perform flawlessly on Standardized Field Sobriety Tests.

The clinical and physical effects of Narcotic Analgesics usually are evident with <u>new</u> users, or with tolerant users who have taken more than their "normal" doses.

One of the most easily observable effects is a condition known as "on the nod". This is a semiconscious type of sleep, brought about by the sedative action of the drug. When a user is "on the nod", their eyelids will become very droopy (ptosis), and the head will slump forward until the chin rests on the chest. But the user usually can be awakened easily and be sufficiently alert to respond to questions.

# C. Onset and Duration of Effects of Narcotic Analgesics

Heroin users generally experience certain psychological effects immediately after injection. These include a feeling of pleasure or euphoria; relief from withdrawal symptoms; and, relief from pain. Physical effects, if they are evident at all, typically will become evident after 5-30 minutes. But remember: physical effects may not be evident if the user is tolerant and has taken a



- o "on the nod"
- o poor motor coordination
- o depressed reflexes
- o slow breathing

The physical effects usually will be observable for up to 4-6 hours with new users.

As the physical effects begin to disappear, <u>withdrawal</u> signs and symptoms start to emerge. These withdrawal signs can become very severe, if the user does not take another dose. However, it is important to keep in mind that <u>when</u> withdrawal signs are evident, the individual is <u>no longer</u> under the influence of the drug.

Withdrawal symptoms usually begin to be felt within 4-6 hours. The addict experiences chills, aches of the muscles and joints, nausea and insomnia.

Outward signs of withdrawal typically start to be observable within 8-12 hours. The addict sweats and has goose bumps on the skin. Reflexes become hyperactive. The addict yawns, may vomit, their nose becomes runny and the eyes tear. At this point, the withdrawal signs and symptoms closely resemble those of the common cold or the 'flu. The withdrawal signs and symptoms intensify from 14-24 hours, and may be accompanied by gooseflesh, slight tremors, loss of appetite and dilation of the pupils.



Approximately 24-36 hours since the last "fix", the addict experiences insomnia, vomiting, diarrhea, weakness, depression and hot/cold flashes. Withdrawal signs and symptoms generally reach their peak after 2-3 days. At this point, the addict usually experiences muscular and abdominal cramps, elevated temperature and severe tremors and twitching. This twitching, especially of the legs, is referred to in the expression "kicking the habit". The addict is very nauseated at this time, may gag and vomit repeatedly, and may lose 10-15 pounds within 24 hours.

## D. Signs And Symptoms of Narcotic Analgesic Overdose

Narcotic Analgesics depress respiration. The user's breathing becomes slow and shallow, and death can occur from severe respiratory depression. The skin becomes clammy, and the overdosing user may experience convulsions, slip into a coma, lips turn blue, body become pale or blue and extremely constricted pupils (unless there is brain damage in which pupils may be dilated).

The danger of death from an overdose of Narcotic Analgesic is heightened by the fact that the addict may not know the strength of the drug that he or she is taking.

## E. Expected Results of The Evaluation

When a person under the influence of a Narcotic Analgesic is examined by a drug recognition expert, the following results generally will be obtained.

Horizontal Gaze Nystagmus - none.

Vertical Gaze Nystagmus - none.

Lack of Convergence - none.

Pupil size - constricted.

Pupil's usually will exhibit little or no visible <u>reaction to light</u>. Hippus may be present during withdrawal.

Pulse rate will be down.

Blood pressure will be lowered.

Temperature will be down.

<u>Injection sites</u> usually will be found, with heroin users. Injection sites may not be evident with users of other Narcotic Analgesics.

In general, the effects of Narcotic Analgesics include:

- o slowed reflexes
- o slow, low and raspy speech
- o sluggish, "rubber-like" movements
- o slowed breathing
- o cold skin
- o possible vomiting
- o muscle tone normal or flaccid
- o "on the nod"
- o "track marks"
- o droopy eyelids (ptosis)
- o facial itching
- o dry mouth
- o euphoria

# F. Injection Site Examination

Examination of injection sites can reveal many clues about a users' drug habit. The sites can reveal if the user injects their drugs and if the use was current or in the recent past.

Drugs enter the body through three major tissues of the body - intramuscular, just under the skin (subcutaneous) or through a vein.

The primary instrument used to inject drugs is a hypodermic syringe. The syringe consists of a hollow needle, tube and a plunger. The inside diameter of the needle or gauge vary in size. The larger the gauge, the smaller the needle.

The user's equipment is commonly referred to as a "hype kit" or "works". The kit consists of a cooker, handle, matches or lighter and a tourniquet.

You will be asked in court to describe the difference between legal and illegal injection marks. A legal injection utilizes the muscle, usually is only mark and sterile needles are used. An illegal injection utilizes veins, will usually be multiple marks in various stages of healing and since the same needle is usually used over and over again the mark will have a barbed or jagged appearance.

A user will frequently use the same spot to inject the drugs to reduce the likelihood of detection. The veins may become hard and thick from continuous use, thus making it difficult to find the vein.

When a needle punctures the skin, a scab is formed. A scab develops within 18 - 24 hours after the puncture. After about 14 days a scab usually starts to peel, flake and fall off. The skin is shriveled and is lighter in color.

There is not exact science to classify the age of puncture sites. However, there are some general guidelines to follow. A fresh puncture site is defined as 0 - 12 hours and will be a red dot and have a oozing appearance. An early puncture site is 12 - 96 hours and will have a light scab, light bruise, reddened border and a crater appearance. A late puncture site is 5 - 14 days and will have a dark scab, dark bruise and the crater will flatten. A healing puncture site is over 14 days and the scab will be flaking and falling off with shriveled, light colored skin.

# G. Expected Location of Injection Marks

Injection sites can be located anywhere on the users' body. The arms are the most frequently used place. The user may use the ankles, neck, feet or any place where a vein is accessible.

It is necessary to conduct a thorough methodical examination of the suspect's arms. Using a magnifying light examine the left inner arm as it is extended with the palm facing you. Then ask the suspect to contract the arm by grasping their shoulder (this forces the veins to protrude). Beginning at the wrist, examine the arm to the elbow. Examine the outer arm as it is extended palm facing down. Start the exam at the shoulder and move to the wrist. Ask the suspect to extend his or her fingers to examine the fingers. Pay particular attention to the areas between the fingers, under watches and rings. Repeat the examination for the right arm.

Ankles are the next most common injection site, especially the back. Extreme caution should be used when examining the shoes and socks for evidence because syringes and needles are commonly hidden there.

### H. Conclusion

The examination may reveal evidence of recent use, however, just the presence of injection sites doesn't mean the person is under the influence or impaired.

A slow methodical examination utilizing a magnifying light is required to obtain evidence for court.

Conducting a thorough examination is a skill and requires practice to become proficient.

# Topics for study

- 1. What are the two subcategories of Narcotic Analgesics?
- 2. What three distinguishing characteristics do all Narcotic Analgesics share?
- 3. Consider this situation:

A heroin addict injects what is, for him, a "normal" dose of the drug. One hour later a drug recognition expert examines the addict and finds that he is not impaired.

What is the most likely explanation for this?

- 4. What is another, more common, name for the drug call Diacetyl Morphine?
- 5. What is Thebaine? What is Percobarb? What is MPPP? What is MPTP?

Drug Influence Evaluation Rolling Log No. 946 0323 Stan O'Dell D Property O Facal O Injury Arrestee's Name (Last, First, MI) Arresting Officer (Name, ID No.) Sex Vaugha, Jerry 5-18-1480 m 5.0'0e11 47650 IPD Date Examined/Time/Location Breath Results 0.000 Refused Chemical Test A Urine ABlood 8-15-2000 2120 Instrument # 234 Miranda Warning Given: KYes O No. Have you been drinking? How much? Time of last drink? Nothing Nothing NA Time now? | When did you last sleep? How long? Are you sick or injured? Are you diabatic or epileptic? □Yes WNo NIGHT Today
Doyou take insulin? Are you under the care of Do you have any physical defects? O Yes & No a doctor or dentist? 🗆 Yes 🔌 No Coordination Wery
Stumbling. Attitud Cooperative bu Are you taking any medication or drugs? O Yes A No Face Norma Normal D Reddened Conjunctiva Speech Tracking: Equal O Unequal Mormal O Bloodshot D Watery how and raspy. Corrective Lens: Pupil Size: A Equal Able to follow stimulus; # Yes | No Eyelids: Propy C Glasses O Contacts, if so O Hard O Soft □ Unequal (explain) One Leg Stand Ven/s/ow reached 1648 in 120 seconds Pulse & Time HGN Left Eye Right Eye Vertical Nystagmus? O Yes 2 No 17125 No Lack of Smooth Pursuit No Convergence Right Bye Left Eye Nο No Max. Deviation ٠ 12153 NONE NONE Angle of Onset Cannot Keep Balance Approx. Approx. Starts Too Soon Sways While Balancing 2 Nijat 31/ Stops Walking Rubber legged, very deliberate steps. VVV Uses Arms to Balance Misses Heel-Toe Steps Off Line □ Hopping . Raises Arms Puts Foot Down Actual Steps Taker Internal Clock Type of Footwear Coupe of Nocone Describe Turn Cannot Do Test (Explain) 50 Estimated At 30 Sec. as instructed N/A Pupil Size Room Light Darkness O Right 🛆 Left Left Eye 2.5 2-5. 2-5 Draw lines from spot touched Oral Cavity Clear Right Eye 2.5 2.5 Reaction To Light LIHIE Hippus Rebound Dilation Q No DYes DNo none visible 4.55 HE (2)/3` 110 Temp Puncture wound Muscle Tone: O Normal KFlaccid with red cot Attach Photos Of Fresh Puncture Marks What Medicine or Drug Have You Been Using? How Much? Where Were The Drugs Used? (Location) quastions wont answer 10 answer any Time DRE Notified 2110 Time Completed ZZ1 O Date/Time of Arrest ID No.5484 Opinion of Evaluator: □ Inherant □ Cannabis D PCP D Rule Out □ Alcohol O Stimulant ri Medical □ Depressant O Hallucinogen KNarcotic Analgasic

| · · · · · · · · · · · · · · · · · · ·  |   |  |  |  |
|--|---|--|--|--|
|  | DRUG INFLUENCE EVALUATION                     | Page <u>2</u> of <u>2</u>                                |  |  |
| LOG NO.  | DRE: Sergeant Dan Webb                        | ARRESTEE: Jerry T. Vaughn                                |  |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.<br>5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS<br>9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |  |  |  |
| 1. LOCATION: Exami   | ination of Jerry T. Vaughn, took place in the | DRE room, 3rd Pct.                                       |  |  |
| 2. WITNESS: Arrestin   | g Officer - Trooper Stanely R. O'Dell         |  |  |  |
| 3. BREATH TEST: T  | rooper O'Dell administer a breath test to Va  | aughn at 2100 hours, the result was 0.00%.               |  |  |
| 4. NOTIFICATION /  | INTERVIEW of ARRESTING OFFICE                 | R: Writer was contacted by radio and                     |  |  |
| advised to return to   | the precinct to conduct a DRE evaluation.     | Tpr O'Dell informed me that he had observed              |  |  |
| the subject's vehicle  | e weaving through the traffic lanes. Subject  | exhibited poor performance on the SFSTs, but there       |  |  |
| no odor of an alcoh  | olic beverage.                                |  |  |  |
| 5. INITIAL OBSERV  | ATIONS: Writer observed subject sitting q     | uietly in the DRE room. He appeared to be asleep;        |  |  |
| eyes were closed, h  | ead nodded forward, breathing was slow. S     | ubject responded to questions and became more alert      |  |  |
| as time passed. His  | voice was low and raspy. He licked his lip    | s repeatedly.  |  |  |
| 6. MEDICAL PROBI   | LEMS: None noted or stated                    |  |  |  |
|  | AL TESTS: Romberg Balance: Subject st         |  |  |  |
| estimated 50 second  | ds as 30 seconds. Walk and Turn: Subject lo   | ost balance during the instructions, missed heel to toe, |  |  |
| stepped off the line   | , and used his arms for balance. One Leg St   | and: Subject put his foot down                           |  |  |
|  | s arms for balance. Finger to Nose: Subject   |  |  |  |
| 8. CLINICAL INDIC  | ATORS: Subject's blood pressure was held      | ow the normal range. The pupils were constricted and     |  |  |
| showed little or no visible reaction to light. Subjects eyelids were droopy.   |   |  |  |  |
| 9. SIGNS of INGESTION: Subject had "track" type scars on both the left and right forearms, and a fresh cozing  |   |  |  |  |
| puncture wound on the back of the right hand.  |   |  |  |  |
| 10. STATEMENTS: Subject denied using any medicine or drugs and refused to answer any questions regarding the   |   |  |  |  |
| puncture wound on the back of his right hand.  |   |  |  |  |
| 11. OPINION of EVALUATOR: In my opinion Jerry T. Vaughn is under the influence of a Narcotic Analgesic   |   |  |  |  |
| and unable to operate a vehicle safely   |   |  |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide both a urine and a blood sample.   |   |  |  |  |
| 13. MISCELLANEOUS:   |   |  |  |  |
|  |   |  |  |  |
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**Drug Influence Evaluation** Evaluator Toland, Socue Rolling Log Not - 0100 0256 M Property 🗆 İnjury O Fatal Bradley. T. Arresting Officer (Name, ID No.) Arrester's Name (Last, First, MI) Sex 4719 MPD W Bradley. T. Burstan, Breath Results 0.000 Refused Date Examined/Time/Location Chemical Test Mesa PO take O Refused Instrument# 11-1-2000 1615 1234 Miranda Warning Given: XYes ONo Have you been drinking? Time of last drink? What have you eaten today? , When? How much? By: T. Bradley Nothina Nothing NA Time now? When de Las Know nig
Do you take insulin? When did you last sleep? Axe you diabetic or epileptic? How long? Are you sick or injured? □ Yes A No a four hours Do you have any physical defects? "Yes KNo Are you under the care of a doctor or dentist? □Yes 41No Coordination 1007 Are you taking any medication or drugs? OYes & No Attituae Cooperative Sloppy-Stumbling Pace Normal Normal Speech Eyes: O Reddened Conjunctiva Blindness: Tracking: Normal D Bloodshot D Watery M'None □ L Eye □ R Eye ¥ Equal □ Unequal Slow and deliberate Corrective Lens: ★None
□ Glasses □ Contacts, if so □ Hard □ Soft Pupil Size: 🗷 Equal Able to follow stimulus: #Yes □ No Eyelids: D Unequal (explain) □ Normal & Droopy Left Eye Right Eye Vertical Nystagmus? □ Yes KNo 60,1630 No No Lack of Smooth Pursuit Convergence Right Eye 1642 No No Max. Deviation NONE None Angle of Onset Romberg Balance Walk and Turn Test Cannot Keep Balance Starts Too Soon\_\_\_\_ B/Sways While Balancing 1" Nine /2" Nine Stops Walking Walked very slowly Uses Arms to Balance Misses Heel-Toe Steps Off Line O Hopping Raises Arms Puts Foot Down Actual Steps Taken Describe Turn LOST Balance Internal Clock Cannot Do Test (Explain) Type of Footwear 50 Estimated At 80 Sec. Loafers staggered to the left. Pupil Size Room Light Darkness Direct ○ Right △ Left Left Eye 1.5 1.5 1.5 Draw lines from spot touched Right Eye 1.5 1.5 Hippus Rebound Dilation Reaction To Light Little to No No □Yes No none visible. 4 puncture wounds with scabs wounds, Fred Cotarina Photo area (2)CXXXX Тешр 97.0. Blood Pressure 100 60 Muscle Tone: O Normal & Flaceid O Rigid
Comments: arms and neck very relaxed. Attach Photos Of Fresh Puncture Marks What Medicine or Drug Have You Been Using? Where Were The Drugs Used? (Location) Time of Use? None answer 1710 ber Signature (tik Jode Rank). ID No 3529 □ Alcohol □ Stimulant O Inhalant □ Medical O Depressant D Hallucinogen Narcotic Analgesic O Cannabis

|  | DRUG INFLUENCE EVALUATION                                    | Page <u>2</u> of <u>2</u>                              |  |  |
|--|--|--|--|--|
| LOG NO.  | DRE: Sgt. Steve Toland                                       | ARRESTEE: D. Bursten                                   |  |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |  |  |  |  |
| 1. LOCATION: Examin  | nation of D. Bursten was conducted at the M                  | Aesa PD holding facility                               |  |  |
| 2. WITNESS: Arresting  | 2. WITNESS: Arresting Officer - Officer T. Bradley #4779 MPD |  |  |  |
| 3. BREATH TEST: W  | riter observed Officer Bradley administer a                  | breath test to Bursten, the result was 0.00%.          |  |  |
| 4. NOTIFICATION / I  | NTERVIEW of ARRESTING OFFICER                                | t: Writer was contacted by radio and advised           |  |  |
| to return to the holdi   | ng facility to conduct a DRE evaluation. O                   | fficer Bradley informed me that the subject had been   |  |  |
| involved in a car cra  | sh at the intersection of Dobson and Main S                  | t. Subject exhibited poor performance on the           |  |  |
| SFSTs, but there wa  | s no odor of an alcoholic beverage.                          |  |  |  |
| 5. INITIAL OBSERVA   | ATIONS: Writer observed subject sitting qu                   | nietly in the DRE room. He was scratching his          |  |  |
| face and neck. His e   | yelids were droopy and his voice was raspy                   |  |  |  |
| 6. MEDICAL PROBL   | EMS: None noted or stated                                    |  |  |  |
| 7. PSYCHOPHYSICA   | L TESTS: Romberg Balance: Subject sw                         | vayed approximately 3" in a circular motion and        |  |  |
| estimated 50 seconds   | s as 30 seconds. Walk and Turn: Subject sto                  | epped out of position during the instructions, stopped |  |  |
| walking and used his   | s arms for balance. One Leg Stand: Subject                   | put his foot down swayed and used his arms for         |  |  |
| balance. Finger to N   | lose: Subject missed tip of his nose four tin                | nes.   |  |  |
| 8. CLINICAL INDICA   | ATORS: Subject's blood pressure, body ten                    | operature and one pulse were all below the normal      |  |  |
| range. The pupils were constricted and showed litle or no visible reaction to light. Subjects eyelids were droopy  |  |  |  |  |
| 9. SIGNS of INGESTION: Subject had three puncture wounds on the right forearm and four puncture wounds with  |  |  |  |  |
| scars on the left forearm  |  |  |  |  |
| 10. STATEMENTS: Subject invoked his Miranda Rights.  |  |  |  |  |
| 11. OPINION of EVALUATOR: In my opinion D. Bursten is under the influence of a Narcotic Analgesic  |  |  |  |  |
| and unable to operate a vehicle safely   |  |  |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.  |  |  |  |  |
| 13. MISCELLANEOUS:   |  |  |  |  |
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Drug Influence Evaluation
RENO XVII - 3 Rolling Log No. - 164 Crash: D Property □ Fatal O Injury Harker Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) W Shechan Kuznlesk Breath Results: 0.00 Refused Instrument # 0.000 17 D Blood Chemical Test TUrine □ Refused 2200 What have you eaten today? Have you been drinking? How much? Time of last drink? Miranda Warning Given: I don't drink Ihaventeaten TETZCAFE Time now? When did you last sleep? Are you diabetic or epileptic Are you sick or injured? 8 An This morning □Yes >No Are you under the care of Do you have any physical defects? Q Yes a doctor or dentist? ∪Yes #No In the picture of health Idon't fake anything Stumbling -Are you taking any medication or drugs! □ Yes No Norma Pale Speech LOW Mumbled □ Reddened-Conjunctive Blindness: Tracking: **₽**Equal □ Unequal PNone □LEye □REye ■ Normal □ Bloodshot □ Watery Eyelids: Able to follow stimulus: ▶ Yes □ No Eyelids: Propopy Pupil Size: Equal B Classes C Contacts, if so O Hard O Soft ti Unequal (explain) HGN Left Eye Right Eye Vertical Nystagmus? O Yes O No 60. ,2210 405 Yes Lack of Smooth Pursuit Convergence Right Eye 1222 No NONE NONE Angle of Onset Cannot Keep Balance Romberg Balance Or Approx. Starts Too Soon R Sways While Balancing Approx. \* Nine Stops Walking Misses Heel-Toe Uses Arms to Balance 30056p Steps Off Line Raises Arms Puts Foot Down Actual Steps Taken Describe Turn As instructed Cannot Do Test (Explain) Internal Clock 55 Estimated At 30 Sec. M/ARoom Light Direct Pupil Size Darkness ○ Right △ Left Left Eye 2.0 Draw lines from spot touched Oral Cavity Right Eye 1.5 2.0 Reaction To Light
Little to none visible Rebound Dilation Hippus u Yes □ Yes 👂 No No 3 AUNCTURE RED WOUNDS RED OCY DOTS DOZING PHOTO FLUID Temp\_ Muscle Tone: D Normal @ Flaccid Attach Photos Of Fresh Puncture Marks Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? Time of Use? "I didn't Nothing, do Ilook like I do dope" Go have a heart a Eval Start Time 2140 Reviewed By: ID No. 726 Opinion of Evaluator: 🗅 Inhalant a Alcohol 🛭 Stimulant □ Rule Out. □ Medical D Depressant ₩Narcotic Analgesic 🗆 Cannabis 🛘 Hallucinogen

| •  |  |  |  |
|--|--|--|--|
|  | DRUG INFLUENCE EVALUATION  | Page <u>2_of_2</u>                                     |  |
| LOG NO.  | DRE; Sgt. Gary Tetzlaff  | ARRESTEE; Thomas Sheehan                               |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |  |  |  |
| 1. LOCATION: Exami   | LOCATION: Examination of Roger J. Kurrus, took place in the DRE room, Jail Division, Parker Center             |  |  |
| 2. WITNESS: Arresting Officer - Officer D. Kvznieski   |  |  |  |
| 3. BREATH TEST: W  | riter observed Off. Kvznieski administer br  | eath test to Sheehan, the result was 0.00%.            |  |
|  |  | R: At 2140 writer was contacted by Off. Kvznieski      |  |
|  |  | e had observed subject driving westbound at 15 mph     |  |
|  |  | ne intersection with Thunderhill Rd. Subject reacted   |  |
|  |  | he point where the emergency lights had been           |  |
|  | ppeared to be asleep and had his eyes close  |  |  |
|  |  | hrs. He was wearing a three piece business suit with   |  |
|  |  | swayed constantly while standing still, and his head   |  |
|  | atedly. Subject spoke slowly in a low raspy  |  |  |
|  | LEMS: None noted or stated.  |  |  |
|  |  | vayed approximately 2" front to back and estimated     |  |
| 55 seconds as 30 se  | conds. Walk and Turn: Subject lost his bal   | ance during the instructions stepped off the line,     |  |
| missed heel to toe,  | and used his arms for balance. One Leg Sta   | and: Subject swayed, raised his arms, and put his foot |  |
| down, Finger to No   | down, Finger to Nose: Subject missed tip of his nose on each attempt and used the wrong hand on the 3rd trial. |  |  |
| 8. CLINICAL INDIC  | ATORS: Subject's pupils were constricted   | , systolic blood pressure was below the normal range.  |  |
|  | w the normal range on two (2) occasions.   |  |  |
| 9. SIGNS of INGES  | FION: Subject's left arm had three (3) rece  | nt puncture wounds and a one inch "track mark" scar.   |  |
| 10. STATEMENTS:  | Subject stated that he did not used any drug   | s. Stated "Do I look like I do dope?" When asked       |  |
|  | uncture wounds, subject said "Go have a he   |  |  |
| 11. OPINION of EVALUATOR: In my opinion Thomas Sheehan is under the influence of a Narcotic Analgesic,   |  |  |  |
| and unable to operate a vehicle safely.  |  |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide both a urine sample and a blood sample.  |  |  |  |
| 13. MISCELLANEOUS: It appears that the subject is right handed.  |  |  |  |
| IO. IIIGOODDEATA   |  |  |  |
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MID-COURSE REVIEW

# A. Drugs, Drug Categories and the Drug Influence Evaluation

- 1. Define the word "drug".
- 2. Name the seven categories.
  - a. Name the six subcategories of Depressants.
  - b. Name three subcategories of Stimulants.
  - c. Name two subcategories of Narcotics.
- 3. Identify the category for each of the listed drugs.

| a. | Xanax        |   |   | f. | Phenyl Cyclohexyl Peperidine |
|----|--------------|---|---|----|------------------------------|
| b. | Desoxyn      |   |   | g. | "Ecstasy"                    |
| c. | Secobarbital | , |   | h. | ETOH                         |
| d. | Dilaudid     | • |   | i. | Numorphan                    |
| e. | Alprazolam   |   | · | j. | Psilocybin                   |

- 4. List the twelve components of the Drug Influence Evaluation in the proper sequence.
  - a. Demonstrate the Preliminary Examination.
  - b. Demonstrate the Eye Examinations.
  - c. Demonstrate the Administration of the Divided Attention Tests.
  - d. Demonstrate the Vital Signs Examinations.
  - e. Demonstrate the Darkroom Examinations.
  - f. Demonstrate the Check for Muscle Tone <u>and</u> the inspection for Injection Sites.
- 5. Identify the category for each of the listed drugs.
  - a. Demerol
    b. Cylert
    c. Chlordiazepoxide
    d. Ketamine
    e. Percodan
    f. Ritalin
    g. Isopropanol
    h. Bufotenine
    i. Thebaine
    j. Methaqualone

# B. Eyes and Vital Signs

- 1. Name the three clues of Horizontal Gaze Nystagmus.
  - a. Demonstrate the check for "Lack of smooth pursuit".
  - b. Demonstrate the check for "Distinct and sustained nystagmus at maximum deviation".
  - c. Demonstrate the check for "Angle of Onset".

- 2. Name the categories of drugs that will cause Horizontal Gaze Nystagmus.
  - a. Name the categories that will cause Vertical Gaze Nystagmus.
  - b. Demonstrate the check for Vertical Gaze Nystagmus.
- 3. Name the test that is always administered immediately after Vertical Gaze Nystagmus.
  - a. Demonstrate the test for Lack of Convergence.
  - Name the categories of drugs that usually will cause Lack of Convergence.
- 4. Name the lighting conditions under which we make estimations of pupil size.
  - a. Demonstrate the room light pupil size estimation procedure.
  - b. Demonstrate the near-total darkness procedure.
  - c. Demonstrate the direct light procedure.
  - d. Name the other things a DRE looks for while shining the light directly into the suspect's eye.
  - e. How quickly must the pupil start to constrict if it is considered to exhibit normal reaction to light?
  - f. Define Hippus.
  - g. Define Rebound Dilation.
- 5. State the normal range of pupil size.
  - a. Define each of the listed terms.
    - o Miosis
    - o Mydriasis
    - o Ptosis
  - b. What kinds of drugs will cause dilation of the pupils?
  - c. What kinds of drugs will cause constriction?
- 6. Identify the category for each of the listed drugs.
  - a. Fentanyl

f. Preludin

b. Halcion

g. Diazepam

c. Librium

h. Biphetamine

d. Peyote

i. Hycodan

e. Darvon

j. Percobarb

#### 7. Define "Pulse".

- a. Define "Pulse Rate".
- b. Define "Artery".
- c. Define "Vein".
- d. Identify the location of each listed pulse point.
  - o Radial
  - o Brachial
  - o Carotid
- e. Demonstrate a pulse measurement, using the left Radial pulse point.
- f. State the normal range of adult human pulse rate.
- g. Name the drug categories that usually cause elevated pulse rate.
- h. Name the drug categories that usually cause lowered pulse rate.

### 8. Define "Blood Pressure".

- a. How often does a person's blood pressure change?
- b. When does the blood pressure reach its highest value?
- c. When does the blood pressure reach its lowest value?
- d. Name the two medical instruments that are used to measure blood pressure.
- e. Name the sounds that we hear through the stethoscope when we make a blood pressure measurement.
- f. What does this "Hg" mean?
- g. In what units is blood pressure measured?
- h. Suppose that, at some particular instant, a person has a blood pressure of 120 mmHg. What does that "120 mmHg" mean?
- i. Name the types of drugs that usually cause a lowered blood pressure.
- j. Name the types of drugs that elevate blood pressure.
- k. State the meaning of each of the listed terms.
  - o Systolic
  - o Diastolic
  - o Bradycardia
  - o Tachycardia
  - o Hypertension
  - o Hypotension
- 1. State the normal range of Systolic blood pressure.
- m. State the normal range of Diastolic blood pressure.
- n. Demonstrate the measurement of blood pressure.

### C. Physiology

- 1. Define "Physiology".
- 2. What is the expression we use to remember the names of the ten major body systems?
  - a. What is M for?
- h. What is I for?
- b. What is U for?
- i. What is N for?
- c. What is the first R for?
- . What is C for?
- d. What is D for?
- e. What is E for?
- f. What is the second R for?
- g. What is S for?
- 3. State the word that means "dynamic balance involving levels of salts, water, sugars and other materials in the body's fluids".
- 4. Which artery carries blood from the heart to the lungs?
  - a. What is unique about the Pulmonary Artery, compared to all other arteries?
  - b. What are the Pulmonary Veins?
  - c. What is unique about the Pulmonary Veins?
- 5. Name the various types of nerves.
  - a. Sensory Nerves, carry messages to the brain.
  - b. Motor Nerves, carry messages from the brain.
  - c. Voluntary Nerves are motor nerves that carry messages to the muscles that we consciously control.
  - d. Autonomic Nerves are motor nerves that carry messages to the muscles and organs we do not consciously control.
  - e. Sympathetic Nerves are autonomic nerves that carry messages commanding the body to react to fear, stress, excitement, etc.
  - f. Parasympathetic Nerves are Autonomic Nerves that carry messages to produce relaxed and tranquil activities.
- 6. Define each of the listed terms.
  - a. Neuron
  - b. Synapse
  - c. Neurotransmitter
  - d. Axon
  - e. Dendrite

# SESSION XVIII

PRACTICE: TEST INTERPRETATION

## SESSION XVIII PRACTICE: TEST INTERPRETATION

Upon successfully completing this session, the participant will be able to:

- Analyze the results of a complete Drug Evaluation and Classification Examination and identify the category or categories of drugs affecting the individual examined.
- o Articulate the basis for the drug category identification.

The purpose of this session is to give you practice in interpreting the results of the Drug Evaluation and Classification examination. During this session, you will be reviewing exemplars with the entire class and later in small groups. During your analysis of the exemplars, utilize all of the information available, including the preliminary examination, eye examinations, psychophysical tests, vital signs, dark room and other evidence. Remember to base your opinion on the totality of the information.

Drug Influence Evaluation Evaluator Warner 0/12 None Crash: 🛭 Property D Injury S. Richardson Arresting Officer (Name, ID No.)

Chuck Crum Race Arrestee's Name (Last, First, MI) W TUrine @ Blood Chemical Test Breath Results: 0.03 7 Refused C Refused Instrument# 1234 2000 Z 330 How much? Time of last drink? What have you eaten today? Have you been drinking? Yes O No Nothing N/AN/A Nothing Wayne Warner Are you diabetic or epileptic? oYes □No Not 516/5 Do you have any physical defects? O Yes O No Are you under the care of O Yes a doctor or deptist? UYes Are you taking any medication or drugs? 

Yes 

No NON Responsive - Passive Not Sick Breath Chemical odor Blankstare Tracking: Equal D Unequal C Reddened Conjunctiva None OLEye OREye □ Normal #Bloodshot □ Watery s/ow Able to follow stimulus: Yes D No Pupil Size: \*Equal (explain) Corrective Lens: ▶None

□ Glasses □ Contacts, if so □ Hard □ Soft Normal Droopy Right Eye Vertical Nystagmus? Yes C No Left Eve HGN Pulse & Time 2340 yes 405 Lack of Smooth Pursuit Left Eye Right Eye 405 403 Max. Deviation 0010 Angle of Onset Cannot Keep Balance Walk and Turn Test "Mopnwalking Legs & arms rigid. Starts Too Soon 1" Nine, 2" Nine Sways While Balancing Stops Walking □ Uses Arms to Balance Misses Heel-Toe Steps Off Line □ Hopping Raises Arms Puts Foot Down Actual Steps Taken Cannot Do Test (Explain) Describe Turn Turned backwards Internal Clock

30 Estimated At 30 Sec. Loafers stopped for losec after turn Room Light Darkness Direct Pupil Size O Right 🛆 Left Left Eye 4.0 6.0 Draw lines from spot touched Clear Right Eye 6.0 Reaction To Light
Normal Rebound Dilation Hippus **≇**No □ Yes XNo ACUIT ABM Œ (4-Temp\_ Attach Photos Of Fresh Puncture Marks Arms and leas. Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? Time of Use? No Answer Answer Haswer Time Completed 2/23 2300 ID No. 2379 C Inhalant □ Rule Out O Stimulant □ Alcohal Opinion of Evaluator: Cannabis □ Narcotic Analgesic Depressant o Hallucinogen O Medical

|  | DRUG INFLUENCE EVALUATION                               | Page <u>2</u> of <u>2</u>                           |  |  |
|--|---|---|--|--|
| LOG NO.  | DRE: Trooper Wayne Warner                               | ARRESTEE: J.M. Martinez                             |  |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |   |  |  |
| 1. LOCATION: Exami   | nation of J.M. Martinez took place in the DI            | RE room, SP Albany, Troop T.                        |  |  |
| 2. WITNESS: S. Richar  | 2. WITNESS: S. Richardson (NHTSA) and Chuck Crum (IACP) |   |  |  |
| 3. BREATH TEST: W  | riter administered breath test to Martinez, t           | he result was 0.00%,                                |  |  |
| 4. NOTIFICATION /  | INTERVIEW of ARRESTING OFFICER                          | : Writer was the arresting officer.                 |  |  |
| 5. INITIAL OBSERV  | ATIONS: Writer observed subject seated in               | the drivers position of a blue, 1996 Oldsmobile, NY |  |  |
| registration "277 BR   | X". Vehicle was stationary in the Northbou              | nd lane of Hannover Ave., at the intersection with  |  |  |
| Hugenot St. The traf   | ffic light was green and the other vehicles ha          | d to pull out and around subject's vehicle.         |  |  |
| 6. MEDICAL PROBL   | EMS: None noted or stated                               |   |  |  |
| 7. PSYCHOPHYSICA   | AL TESTS: Romberg Balance: Subject swa                  | ayed approximately 3" side to side.                 |  |  |
| Walk and Turn: Subj  | ect lost his balance during the instructions,           | stopped walking, turned backwards.                  |  |  |
| He paused for appro  | ximately ten (10) seconds after turning and             | exhibited muscle rigidity in his arms and legs      |  |  |
| throughout the test. One Leg Stand: Subject raised his arms, put his foot down, staggered and nearly fell  |   |   |  |  |
| at this point the test was stopped. Finger to Nose: Subject missed tip of his nose four times.   |   |   |  |  |
| 8. CLINICAL INDICA   | ATORS: Subject had HGN, Vertical Nystag                 | mus and Lack of Convergence. His pulse was          |  |  |
| above the normal.  |   |   |  |  |
| 9. SIGNS of INGESTION: Subject's breath had a strong chemical odor.  |   |   |  |  |
| 10. STATEMENTS: Subject was very passive throughout the evaluation and was very slow at responding to questions.   |   |   |  |  |
| He repeatedly answered "not sick" to questions concerning the use of medication. He also failed to respond to a  |   |   |  |  |
| couple of the questions  |   |   |  |  |
| 11. OPINION of EVALUATOR: In my opinion J.M. Martinez is under the influence of  |   |   |  |  |
| and unable to operate a vehicle safely.  |   |   |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.  |   |   |  |  |
| 13. MISCELLANEOUS:   |   |   |  |  |
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**Drug Influence Evaluation** DRE No /802 Rolling Log No. Črash: Recorder/Witness O Property a Injury O Fatal DELVECHIO Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) DOB Sex Race USP BELVECHIO W GROVES ROBERT Chemical Test Urine □ Blood Breath Results: OOD Refused Instrument # 1234 3ND PCT Date Examined/Time/Location O Refused 146 15 1996 0100 <u>uBPD:</u> Have you been drinking? How much? Time of last drink? What have you eaten today? Miranda Warning Given: #Yes D No Are you diabetic or epileptic?

□ Yes ◆ No NOTHING FRIED CHECKEN CLARK □ Yes →No Are you sick or injured? When did you last sleep? How long? Are you under the care of Do you have any physical defects? O Yes ANO Do you take insulin? a doctor or dentist? Yes Coordination Are you taking any medication or drugs? O Yes O No COOPERATIVE STUMBLING COUTENE FOR Breath NORMAL OBOR BREATHENG SLOW & Eyes: O Reddened Conjunctive NORMAL NEEDED BACK PAIN AS SHALLOW Tracking: Blindness: ø None □LEys, □REye 🚁 Equal O Unequal Normal □ Bloodshot □ Watery SLOW KENMUMBLES Evelids: Able to follow stimulus: Yes O No Corrective Lens: None

Glasses Contacts, if so Chard Coft Pupil Size: 🎏 Equal O Normal Troopy u Unequal (explain) Vertical Nystagmus? 

Yes No. Left Eye Right Eye HGN Pulse & Time ,0110 NO Convergence NO Lack of Smooth Pursuit Left Eye 14/20 Right Eye NO NO Max, Deviation NONE とのひだ Angle of Onset Cannot Keep Balance 🕆 Romberg Balance Walk and Turn Test Starts Ton Soon Approx. 2<sup>™</sup> Nine 1st Nine Sways While Balancing Stops Walking Uses Arms to Balance Misses Heel-Toe Stops Off Line Acpping Raises Arms 11 Puts Foot Down Actual Steps Taker 9 Cannot Do Test (Explain) Internal Clock 53 Est Describe Turn LOST BALANCE WES U \_Estimated At 30 Sec. STAGGETERS) TO Nasal Area C UEAR Direct Room Light Darkness Pupil Size ○ Right △ Left Left Eye 2.0 Oral Cavity Draw lines from spot touched CLEAR Right Eye 2 0 2 Rebound Dilation Reaction To Light LITLE. OR □ Yes • No Hippus o Yes 🤌 No LEFT ANK . 2 Œ Temp 27. 8 Blood Pressure 10 L Muscle Tone: @ Normal & Flaccid @ Rigid Attach Photos Of Fresh Puncture Marks Comments: ARUS & NECK ARUS INECK AUBSELY
What Medicine or Drug Have You Been Using? Where Were The Drugs Used? (Location) Time of Use?

AROUND

DENNED How Much? RESTAURANT FOR MY BACK COMPLE OF PILLS Time Completed 0100 0025 772 Ken 🗆 Inhalant O Stimulant Opinion of Evaluator: 🗆 Rule Out n Alcohol O Narcotic Analgesic Cannabis a Hallucinogen 🛘 Medical 🛘 Depressant

| DRUG INFLUENCE EVALUATION Page 2 of 2  |  |  |  |
|--|--|--|--|
| LOG NO.  | DRE: Sgt. Ken Clark                            | ARRESTEE: Robert G. Groves                             |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |  |  |  |
| 1. LOCATION: Exami   | nation of Robert G. Groves, took place in th   | e DRE room, 3rd Pct. Virginia Beach PD                 |  |
| 2. WITNESS: Arresting  | g Officer - Trooper J.J. Delavecchio           |  |  |
| 3. BREATH TEST: W  | riter observed Trooper J.J. Delavecchio adm    | ninister a breath test to Groves, the result was 0.00% |  |
| 4. NOTIFICATION /  | INTERVIEW of ARRESTING OFFICER                 | : Writer was contacted by radio and advised to         |  |
| return to the precinct   | to conduct a DRE evaluation. Tpr Delave        | cchio informed me that he had observed                 |  |
| the subject's vehicle  | drifting across the center line and driving 1. | 5 mph in a 45 mph zone. Tpr Delavecchio further        |  |
| stated that the subjec   | et admitted to taking "a few" pain pills.      |  |  |
| 5. INITIAL OBSERVA   | ATIONS: Writer observed the subject seated     | fint he breath testing room VBPD. Subject appeared     |  |
| sleepy with his eyes   | closed and head nodded forward. He was co      | ooperative throughout the examination.                 |  |
| 6. MEDICAL PROBL   | EMS: Subject stated that he had taken codie    | ne pills to alleviate back pain, and that he'd had an  |  |
| apointment with his  | doctor earlier that day. He further stated tha | t he was not experiencing any pain at this time.       |  |
| 7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed side to side and front to back, and estimated 53  |  |  |  |
| seconds as 30 second   | ds. Walk and Turn: Subject lost his balance of | luring the instructions, missed heel to toe, and lost  |  |
| his balance while turn   | ning. One Leg Stand: Subject raised his am     | ns, put his foot down, and swayed. Finger to Nose:     |  |
| Subject missed tip of nose on each attempt.  |  |  |  |
| 8. CLINICAL INDICATORS: Subject's blood pressure was below the normal range and his pupils were constricted.   |  |  |  |
| 9. SIGNS of INGESTION: None were evident   |  |  |  |
| 10. STATEMENTS: Subject stated he had taken "a couple of pills for my back". He also stated that the pills contained   |  |  |  |
| Codiene.   |  |  |  |
| 11. OPINION of EVALUATOR: In my opinion Robert G. Groves is under the influence of a   |  |  |  |
| and unable to operate a vehicle safely.  |  |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.  |  |  |  |
| 13. MISCELLANEOUS:   |  |  |  |
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Drug Influence Evaluation Rolling Log No. DRE No Evaluator KLI MI, XV III -3 2838 Crash: □ None Recorder/Witness □ Property 🗆 Injury O Fatal Arresting Officer (Name, ID No.) DÖB Sex Race Arrestee's Name (Last, First, MI) J. \*1811 PHOEDIX PD 3 いいいいいのとされ HATOS STEPHEN XUrine □ Blood Breath Results: O Refused Chemical Test Date Examined/Time/Location A9621CAPA `□ Refused Instrument # 0.04 JAIL 862G1 11.25.2000 2300 Time of last drink? Have you been drinking? How much? What have you eaten today? When? Miranda Warning Given: 🅦 Yes 🛛 No تائد، ش تان کلامات ۵ 2 HRS AUC ひことしまり □Yes ≅No Are you diabatic or apileptic? When did you last sleep? Are you sick or injured? How long? Time now? □Yes ANo SHES LAST WIGHT Do you have any physical defects? II Yes No Are you under the care of D Yes Do you take insulin? a dector or dentist? □ Yes ¥ No Coordination Are you taking any medication or drugs? O Yes A No Attitude COCPERATIVE
Breath NERWOUS STUMBLING 500 B .Face MANDOWA OF ALCOHOLI 0002 Tracking: Speech NORMAL BUT くりらく None DLEye GREye **★** Equal □ Unequal MNormal OBloodshot OWatery TALKATHE Corrective Lens: XNone

□ Glasses □ Contacts, if so □ Hard □ Soft Able to follow atimulus: Yes a No Evelids: Pupil Size: Normal O Droopy O Unequal (explain) Vertical Nystagmus? D Yes WNo One Leg Stand Left Eye Right Eye Pulse & Time 1. 100 12340 Lack of Smooth Pursuit Convergence Yes 155 Left Eye Right Eye 2, 104 / 2349 No Max: Deviation Dc 4 بادرون 108 3-3 Angle of Onset こうこじの Cannot Keep Balance Walk and Turn Test Romberg Balance Starts Too Soon Approx. 以 D Sways While Balancing t" Nine 2<sup>M</sup> Nine Stops Walking 3 Uses Arms to Balance Misses Heel-Toe Steps Off Line D Hopping Raises Arms Puts Foot Down Actual Steps Taken Type of Footwear Cannot Do Test (Explain) Describe Turn Internal Clock 26 Estimated At 30 Sec. LUAFERS AS INSTRUCTED Direct Nasal Area REDNESS Room Light Darkness Pupil Size البونعكم ٢١ ف ١٢٥ C) Right  $\triangle$  Left Left Eve %.5 6.0 5.5 Draw lines from spot touched Oral Cavity Right Eye 5.5 8.5 CLEAR B. Reaction To Light Rebound Dilation Hippus O Yes Ø! No □Yes KNo SLOW (2)NO: -VISIBLE MARKS 99.2 100 Temp . Muscle Tone: A Normal O Flaccid O Rigid Attach Photos Of Fresh Puncture Marks Comments: Where Were The Drugs Used? (Location) Time of Use? What Medicine or Drug Have You Been Using? How Much? I D. 3.3.7 DO AO " I 5190; عالم المسلم المعالمة N/A NONE Time Completed Time DRE Notified Eval Start Time Date/Time of Arrest コラミク・ 2330 <u>C010</u> 2:10 11-96-9000 -25 - 2000 Member Signature (Include Rank) ID No. Reviewed By: D LAMM 10064 □ Stimulant o PCP □ Inhalant Cl Alcohol Opinion of Evaluator: 🗆 Rule Out O Hallucinogen Narcotic Analgesic D Cannabis O Depressant □ Medical

|   | DRUG INFLUENCE EVALUA   | TION Page 2_ of 2   |  |
|---|---|---|--|
| LOG NO.   | RE: Lt. Joseph Klima  | ARRESTEE: Stephen H. Hatos                                    |  |
| LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.  INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS  SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |   |  |
| 1. LOCATION: Examina  | tion of Stephen H. Hatos, took place  | ce in the DRE room, Maricopa County Jail                      |  |
| 2. WITNESS: Arresting (   | Officer - J. Unsworth #1811   |   |  |
| 3. BREATH TEST: Office  | er Unsworth administer a breath t   | est to Hatos, the result was 0.04%                            |  |
| 4. NOTIFICATION / IN  | TERVIEW of ARRESTING OF   | FICER: Writer was contacted by radio and advised to           |  |
| return to the jail to cond  | luct a DRE evaluation. Officer Ur   | nsworth informed me that he had observed the subject          |  |
|   |   | affic light. Officer Unsworth further stated that the subject |  |
|   | performed poorly on the SFSTs.  |   |  |
| 5. INITIAL OBSERVAT   | TIONS: Writer observed the subject  | ct seated in the breath testing room. Subject was very        |  |
| talkative, repeatedly sl  | nifted his weight from foot to foot,  | and exhibited nervous abrupt movements with his hands.        |  |
|   |   | was also an odor of alcoholic beverage on the subjects        |  |
| breath.   |   |   |  |
| 6. MEDICAL PROBLE   | MS: None noted or stated  |   |  |
| 7. PSYCHOPHYSICAL   | TESTS: Subject performed all of   | the tests in a stumbling jerky fashion. Romberg Balance:      |  |
|   |   | seconds as 30 seconds. Walk and Turn: Subject                 |  |
|   |   | king and used his arms for balance. One Leg Stand: Subject    |  |
| raised his arms, put hi   | s foot down, and swayed. Finger   | to Nose: Subject missed tip of nose on each attempt.          |  |
|   | 8. CLINICAL INDICATORS: Subject's blood pressure and pulse were above the normal range. |   |  |
| 9. SIGNS of INGESTIC  |   |   |  |
| 10. STATEMENTS: Su  | 10. STATEMENTS: Subject stated, "I didn't snort anything"                               |   |  |
| <u> </u>  | 11. OPINION of EVALUATOR: In my opinion Stephen H. Hatos is under the influence of a    |   |  |
| and unable to operate a vehicle safely.   |   |   |  |
|   | SAMPLE: Subject agreed to pro   | vide a urine sample.  |  |
| 13. MISCELLANEOUS:  |   |   |  |
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**Drug Influence Evaluation** Rolling Log No. 318 Evaluator PCF-F 422 XVIII -4 MEL Crash: Recorder/Witness Z None O Injury © Property O Fatal JOHN MCKAY (TENE DECP) Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) DOB Race ... POFF, M. #314 3.15.66 3 w 3CHAFER, BRIAN Urine B Blood Breath Results: □ Refused Chemical Test Date Examined/Time/Location CENTEAL □ Refused Instrument # 0.00 17, 2001 LACE NOTOX. 2200 Have you been drinking? How much? Time of last drink? What have you eaten today? When? Miranda Warning Given: 🕱 Yes 🗆 No By: M. POFF と ۵ إن SIMALL TRUL CHINESE FOOD Are you diabetic or epileptic? Time now? | When did you last sleep? How long? Are you sick or injured? □ Yes ¬XNo □Yes \$No AACUT LAST DIGHT 2 HOURS Are you under the care of Do you have any physical defects? DYes XNo Do you take insulin? OYes KNo a doctor or dentist? MYes DNo FOR STRESS Coordination Attitude Are you taking any medication or drugs? WYes No POOR STAGGERING C OOPERATIVE DETAKHED PACE NORMAL COLOR BLANK STARE VALIUM 10mg. TWICE A DAY BLANK CHEMICA D Reddened Conjunctiva Blindness: Tracking: THICK, SLURDED, SLOW □ Normal □ Bloodshot ★Watery ANone □LEye □REye XEqual □ Unequal TO RESPOND Able to fellow stimulus: X Yes □ No Evelids: Corrective Lens: Pupil Size: KEqual **X**None Normal Droopy □ Glasses □ Contacts, if so □ Hard □ Soft □ Unequal (explain) Vertical Nystagmus? 🜶 Yes · □ No One Leg Stand Right Eye Left Eve Puise & Time HGN dg 13510 Lack of Smooth Pursuit Convergence Yes Right Eye 1 2225 Max. Deviation YES YES ... 94 ීපළ 15532 Angle of Onset Cannot Keep Balance スタック Ca Destory Walk and Turn Test Romberg Balance Starts Too Soon Approx. Approx. I<sup>4</sup> Nine 2<sup>rd</sup> Nine Ja Sways While Balancing Stops Walking Misses Heel-Tos ∫∯ Uses Arms to Balance Steps Off Line 1 Hopping Raises Arms Puts Foot Down Actual Steps Taken 10 Cannot Do Test (Explain) Type of Footwear Internal Clock Describe Turn 러스 Estimated At 30 Sec. 心/ム マラン ショ SHOES TURNED BACKWARD Pupil Size Room Light Darkness Direct Nasal Area UERY RIGID ARM MOJEMENTS Right A Left CUESAR Left Eye 0.4 Draw lines from spot touched ٥.٥) 4.0 Oral Cavity PED COATING ON TONGUE Right Bye 4.0 4.0 6.0 Reaction To Light Hippus □ Yes Rebound Dilation X'No ĐΥés ≱ΥNο SLOW  $\bigcirc$ Temp 99.2. 144 100 Blood Pressure\_\_\_ Muscle Tone: □ Normal □ Flaced KRigid Comments: Attach Photos Of Fresh Puncture Marks Ł DEMS Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? Time of Use? Thaid I صن١٣٠١، ١٥ قد يقد . YESTERIAN'S Time Completed のうらの **Bval Start Time** Date/Time of Arrest Time DRE Notified 3065 5150 ID No. Bid Member Signature (Include Rank) Reviewed By: □ PCP 1258,325. □ Stimulant □ Inhalant Opinion of Evaluator: 🗆 Rule Out □ Alcohol

O Medical

□ Depressant

🗅 Hallucinogen

© Narcotic Analgesic

O Cannabia

|  | DRUG INFLUENCE EVALUATION                     | Page_2_of_2   |  |  |
|--|---|---|--|--|
| LOG NO.  | DRE: Officer Mel Poff                         | ARRESTEE; Brian Schafer                               |  |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |   |  |  |
| 1. LOCATION: Exami   | nation of Brian Schafer took place in the DF  | RE room, HPD  |  |  |
| 2. WITNESS: Mr. John McKay (Texas DECP Cordinator)   |   |   |  |  |
| 3. BREATH TEST: Writer administered breath test to Schafer the result was 0.00%.   |   |   |  |  |
| 4. NOTIFICATION/   | INTERVIEW of ARRESTING OFFICER                | : Writer was the arresting officer.                   |  |  |
| 5. INITIAL OBSERVA   | ATIONS: Writer observed subject seated in     | the drivers position of a blue, 1990 Oldsmobile, NJ   |  |  |
| registration "297 BX   | X". Vehicle was stationary in the driving la  | ne of Easton Ave., at the intersection with           |  |  |
| West St. The traffic   | light was green and the other vehicles had to | pull out and around subject's vehicle.                |  |  |
| 6. MEDICAL PROBL   | EMS: None noted or stated                     |   |  |  |
| 7. PSYCHOPHYSICA   | AL TESTS: Romberg Balance: Subject swa        | ayed approximately 2" in a circular motion and        |  |  |
| estimated 46 seconds   | as 30 seconds. Walk and Turn: Subject los     | t his balance during the instructions, missed heel to |  |  |
| toe, stopped walking, stepped off the line, turned backwards, and returned taking ten (10) steps.  |   |   |  |  |
| One Leg Stand: Subject raised his arms, put his foot down, and swayed. Finger to Nose: Subject missed tip of his   |   |   |  |  |
| nose, and had very r   | nose, and had very rigid arm movements.       |   |  |  |
| 8. CLINICAL INDICATORS: Subject had HGN, Vertical Nystagmus and Lack of Convergence. His pulse, and blood  |   |   |  |  |
| pressure were above  | pressure were above the normal range.         |   |  |  |
| 9. SIGNS of INGESTION: Subject's breath had a strong chemical odor and a red coating on the tongue.  |   |   |  |  |
| 10. STATEMENTS: Subject stated he regularly takes Valium for stress. He further stated "I don't do anything else."   |   |   |  |  |
| 11. OPINION of EVALUATOR: In my opinion Brian Schafer is under the influence of  |   |   |  |  |
| and unable to operate a vehicle safely.  |   |   |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.  |   |   |  |  |
| 13. MISCELLANEOUS:   |   |   |  |  |
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**Drug Influence Evaluation** Rolling Log No 28-1014 Evaluato Studdard, R. C. 0001 Crash: O Property o Fatal 🛘 Injury Kochubka, D. Arresting Officer (Name, ID No.) DOB Arrestee's Name (Last, First, MI) Sex 732 MPOC Johnson, Steve 7-15-1965 Kochubka, M Chemical Test Breath Results 0.0 @ Refused Urine & Blood Date Examined/Time/Location □ Refused Instrument# USCP 1234 118/2000 20,30 Time of last drink? Miranda Warning Given: Yes 🗆 No Have you been drinking? How much? What have you eaten today? Some toast, this morning Coffee By: Kochubka, O. Are you diabetic or epileptic? Time now? When MIO LA NIGHT NI Do you take insulin? Are you sick or injured? When did you last sleep? How long? □Yes 74No hours EYes ANO Are you under the care of Do you have any physical defects? O Yes A No a doctor or dentist? □ Yes Attitude Rassive - Cooperative Are you taking any medication or drugs? U Yes No Breath Halitosis blank O Reddened Conjunctiva Tracking: Equal O Unequal Blindness: None □LEye □REye ANormal □ Bloodshot □ Watery Slow, lowand raspu Eyelids: Able to follow stimulus: Yes I No None Pupil Size: ÆEqual

Unequal (explain) Corrective Lens: 1 Normal & Droopy □ Glasses □ Contacts, if so □ Hard □ Soft Left Eye Right Eye Vertical Nystagmus? #Yes □ No HGN 2038 405 4es Lack of Smooth Pursuit Convergence Left Eye Right Eye Yes 2051 Yes Max. Deviation ,2103 35° Angle of Onset Cannot Keep Balance Romberg Balance Walk and Turn Test Starts Too Soon R Sways While Balancing Арргох. Approx. I" Nine 2" Nine Stops Walking v 3403 □ Uses Arms to Balance Misses Heel-Toe VV Steps Off Line O Hopping Raises Arms Puts Foot Down Actual Steps Taken Describe Turn abrupt Swiver Followed by staggering Cannot Do Test (Explain) Internal Clock 50 Estimated At 30 Sec. Room Light Pupil Size Darkness Direct O Right A Left Left Eye 2.5 Z. 0 2.0 Draw lines from spot touched Right Eye 2:0 2.5 Rebound Dilation Reaction To Light Little or none Hippus □Yes ¥No visible. Numerous puncture wounds MOHT MIN WITH 50065  $Z_1$ car-tissus area / Temp <u>98.9</u> 130 Blood Pressure\_ Muscle Tone: Normal D Flaccid O Rigid Attach Photos Of Fresh Puncture Marks Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? Time of Use? I didn tvs : it. I don't do that anymore. Vo. I diant use nothing Time DRE Notified 2020 ID No./DZ ☐ Stimulant # PCP o Inhalant Opinion of Evaluator: □ Alcohol TRule Out O Cannabis □ Medical O Depressant 🗅 Hallucinogen D Narcotic Analgesic

|   | DRUG INFLUENCE EVALUATION   | Page 2_of 2.   |  |  |  |  |
|---|---|--|--|--|--|--|
| LOG NO.   | DRE: Sgt. Richard Studdard ARRESTEE: Steve Johnson  |  |  |  |  |  |
| LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.     INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS     SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |  |  |  |  |  |
| 1. LOCATION: Exami  | 1. LOCATION: Examination of Steve Johnson took place in the DRE room, US Capitol Police HDQT.                   |  |  |  |  |  |
| 2. WITNESS: Arresting   | g Officer D. Kochubka, MPDC and Officer   | G. Bird USCP   |  |  |  |  |
| 3. BREATH TEST: O   | Officer D. Kochubka administered breath te  | st to Johnson the result was 0.00%.                      |  |  |  |  |
| 4. NOTIFICATION /   | INTERVIEW of ARRESTING OFFICER  | : Writer was on duty at USCP HDQTs administering         |  |  |  |  |
| the DRE knowledge   | examination when notified that Officer Koc  | hubka was in route with a "drugee". Officer              |  |  |  |  |
| Kochubka stated he l  | nad observed the subject walking eastbound  | on East Capitol St., staggering and stumbling. He        |  |  |  |  |
| appeared dazed conf   | fused and mumbling softly. He further state   | d that the subject was wearing only shorts, a tee shirt, |  |  |  |  |
| and w as barefoot. Ti   | he temperature at the time was approximatel   | y 34' F. No odor of alcoholic beverage was detected.     |  |  |  |  |
| 5. INITIAL OBSERV   | ATIONS: Writer observed subject as he was   | s being brought into the building. He repeatedly         |  |  |  |  |
| staggered, stumbled,  | exhibited a blank stare and appeared to be u  | naware of his surroundings.                              |  |  |  |  |
| 6. MEDICAL PROBL  | EMS: None noted or stated   |  |  |  |  |  |
| 7. PSYCHOPHYSICA  | AL TESTS: Romberg Balance: Subject swa  | yed approximately 3" side to side and estimated 50       |  |  |  |  |
| seconds as 30 second  | ls. Walk and Turn: Subject lost his balance of  | luring the instructions, stepped off the line, stopped   |  |  |  |  |
| walking, repeatedly 1   | nissed heel to toe, and raised his arms for ba  | lance. One Leg Stand: Subject raised his arms, put       |  |  |  |  |
| his foot down, sway   | ed, and raised his arms for balance. Finger   | to Nose: Subject had to be reminded several times        |  |  |  |  |
| to keep his eyes clos   | ed, and consistently missed the tip of the no   | Se.  |  |  |  |  |
| 8. CLINICAL INDICATORS: Subject had HGN, Vertical Nystagraus and Lack of Convergence. His pulse was above   |   |  |  |  |  |  |
| the normal range, an  | the normal range, and his blood pressure and temperature were within the normal range. Pupils were constricted. |  |  |  |  |  |
| 9. SIGNS of INGESTION: Subject's had numerous scars resembling track marks on both arms, and had a fresh  |   |  |  |  |  |  |
| oozing puncture wound on the right arm.   |   |  |  |  |  |  |
| 10. STATEMENTS: Subject stated, "No I didn't use anything", "I didn't use it " and "I don't do that anymore"  |   |  |  |  |  |  |
| 11. OPINION of EVALUATOR: In my opinion Steve Johnson is under the influence of   |   |  |  |  |  |  |
| and unable to operate a vehicle safely.   |   |  |  |  |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a blood sample.   |   |  |  |  |  |  |
| 13. MISCELLANEOUS:  |   |  |  |  |  |  |
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Drug Influence Evaluation Rolling Log No. DRE No 445 XVIII-6 VAC. 6.4X Crasn Recorder/Witness □ Property X Fatal 🛘 Injury Arresting Officer (Name, ID No.) Arrestee's Name (Last, First, MI) DOB Sex Race CHP AUAU WASE 10-3-75 3 OFFICEL 12890 CAMELER SHOLLY Breath Results: □ Refused Chemical Test Urine Blood Date Examined/Time/Location Instrument# D Refused .00 6-10-2000 1245 CHP SHURAMENTO C1523 When? Have you been drinking? How much? Time of last drink? Miranda Warning Given: O Yes O No What have you eaten today? THILLS AT By: (-ATE'S I DIDN'T Nonition YET NA □ Yes XNo Are you diabetic or epileptic? When did you last sleep? How long? Are you sick or injured? Time now? ∪ Yes ≰No " ABOUT 2 DAY ?" IL NOT 74<u>...</u> 10 SEC PAUSE NO HASY Do you have any physical defects? O Yes XNo Are you under the care of Ø No Do you take insulin? a doctor or dentist? □Yes of No I Don't GO TO THE DOC VM...DOT YET Coordination Are you taking any medication or drugs? X Yes O No SULL TO RESPON CODPERATIVE <u> 12 کی ا</u> <u> جهارت، به</u> I TOOK TYLENOL THIS Face UDUSULU നവലഹ്. പ പ്ര じのTUI ACS しんことしない Eyes: □ Reddened Conjunctiva NOTHING Blindness: Tracking: Speech Low VOICE ろしゅんご D Normal D Bloodshot Watery None CLEye CREye K Equal Q Unequal AUN SOMETHES בריהוציבים Pupil Size: O Equal RT PUPIL 2 MM Eyelids: Able to follow stimulus: X Yes □ No a None Corrective Lens: #Unequal (explain) LARLES IN ALL Normal O Droopy □ Glasses □ Contacts, if so □ Hard □ Soft しゅうさんり One Leg Stand Vertical Nystagmus? @ Yes No Right Eye Pulse & Time HGN Left Bye (14) 1. 120. 1245 Convergence Lack of Smooth Pursuit കര NO Right Eye Left Eye Max. Deviation 2. 120 / 1305 SO こり •-8. <u>120 /</u>. 1345 Angle of Onset HUNE none Romberg Balance Walk and Turn Test Cannot Keep Balance Starts Too Soon Арргох. Approx. 1st Nine 2nd Nine Sways While Balancing Stops Walking STATED, "THIS IS"
IMPOSSIBLE" STEPPED
OFF UNE AND WINLD Misses Heel-Toe Uses Arms to Balance Steps Off Line O Hopping Raises Arms ے ن دم ۳۲ ده ہ 700 Puts Foot Down Actual Steps Taken Internal Clock Describe Turn Cannot Do Test (Explain) Type of Footwear Estimated At 30 Sec. い/ユ PLETUSED TO COMPLETE LOCELL <u> ಶಿಲಾಗವ</u> Room Light Darkness Direct Nasal Area Pupil Size ○ Right △ Left CLEAS Left Eye 5.5 7.5 Š.O Draw lines from spot touched Oral Cavity Right Eye 3.5 5.5 3.0 CLERGE Rebound Dilation Reaction To Light Hippus O Yes □ Yes No ≫**∕**‰ NORMAL  $^{\prime \prime}$ 2 NONE ටපින්**නව**ට Temp 99.0 80 160 Blood Pressure\_ Muscle Tone: Normal | Flaccid | Rigid Attach Photos Of Fresh Puncture Marks Comments: Time of Use? Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? THE CYCLE IN A NO ANSLLY Eval Start Time Time Completed Date/Time of Arrest DCS: 1345 Member Signature (Include Rank) ID No. Licta KNOWLES P.10 Opinion of Evaluator: 🛘 Stímulant n PCP O inhalant □ Rule Out □ Alcohol Medical □ Depressant □ Hallucinogen ☐ Narcotic Analgesic Cannabis

#### DRUG INFLUENCE EVALUATION

Page 2 of 2

LOG NO.

DRE: Officer Vaughn Gates

ARRESTEE: Cameron H. Sholly

- 1, LOCATION 2, WITNESS 3, BREATH TEST 4, NOTIFICATION / INTERVIEW ARRESTING OFCR.
- 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
- 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.
- 1. LOCATION: Examination of Cameron Sholly took place in the DRE examination room Sacramento CHP
- 2. WITNESS: Arresting Officer Officer Sean Nava, #12890
- 3. BREATH TEST: Writer administered breath test to Sholly the result was 0.00%
- 4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: I was advised via dispatch to respond to Southwest

  Division to conduct an evaluation at the request of Officer Nava. Officer Nava stated that the subject had been

  a driver of a vehicle involved in a fatal crash.
- 5. INITIAL OBSERVATIONS: Writer first observed the defendant standing next to the breath testing instrument at the rear door of Sacramento Station. He was standing upright on his own without assistance and was not swaying.
- 6. MEDICAL PROBLEMS: The defendant did state that high blood pressure runs in his family and defendant sometimes stutters uncontrollably.
- 7. PSYCHOPHYSICAL TESTS: During the instruction portions of all the divided attention tests. Defendant appeared to be confused. When asked if he understood the instructions of the test, Sholly would say "yes" or "yeah" but would still appear to be confused. I had to continually show the defendant how to perform the test, and after the defendant would perform the test, he would still appear to not have understood what he had just done. The defendant would not complete or even attempt to complete the walk and turn test. He just stated "This is impossible" and stand there staring at the line on which he had been standing. I had to physically move the defendant's right foot in front of his left foot on the line during the instruction phase, even after repeated demonstrations he didn't seem to understand. Romberg Balance: Subject estimated 15 seconds as 30 seconds. Williams exhibited non-bilateral impairment on certain divided attention tasks: for example during the finger to nose test, he correctly touched his nose with his right index finger, but missed on all three occasions with his left hand.
- 8. CLINICAL INDICATORS: Subjects pulse and systolic blood pressure were above the normal range. He was sweating heavily around the neck and chest area. Pupils were unequal (2 millimeters) in all light levels.
- 9. SIGNS of INGESTION: None were evident
- 10. STATEMENTS: Defendant stated "I do not use (stutter pause) drugs at all, I only took two Tylenol this morning.

  (long pause 10 -seconds) I don't drink that much anymore, either."
- 11. OPINION of EVALUATOR: In my opinion, Cameron Sholly is not exhibiting any symptoms of drug intoxication but was possibly exhibiting signs of mental impairment.
- 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample

SESSION XIX

INHALANTS

## SESSION XIX INHALANTS

Upon successfully completing this session, the participants will be able to:

- o Explain a brief history of the Inhalant category of drugs.
- o Identify common drug names and terms associated with this category.
- o Identify common methods of administration for this category.
- o Explain the symptoms, observable signs and other effects associated with this category.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with this category.
- o State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of this category of drugs.
- o Correctly address the "Topics for Study" questions at the end of this session.

# A. Overview of Inhalants

Inhalants include a wide variety of breathable chemicals that produce mind altering results. These substances are readily available in many households and can be purchased easily. Inhalants are sometimes called deliriants, in that they may produce delirium. Delirium is usually a brief state characterized by incoherent excitement, confused speech, restlessness and possible hallucinations. Depending on the nature of the particular Inhalant, the effects produced may be similar to those of stimulants, depressants, or hallucinogens.

There are three major subcategories of Inhalants.

The <u>volatile solvents</u> include a large number of readily available substances, none of which is intended by the manufacturer to be used as a drug. One of the most widely abused volatile solvents is plastic cement, or "model airplane glue". Plastic model cement includes the following volatile chemicals: toluene, acetone, naphtha, aliphatic acetates, hexane, cyclohexane, and benzene. Other frequently abused volatile solvents include: paint, gasoline, paint thinners, dry cleaning fluids, typewriter correction fluid, engine degreasers, spray paint, and fingernail polish removers.



The <u>aerosols</u> are chemicals discharged from a pressurized container by the propellant force of a compressed gas. Commonly abused aerosols include hair sprays, deodorants, insecticides, freon, glass chillers and vegetable frying pan lubricants. Abused aerosols contain various hydrocarbon gasses that produce drug effects.

The majority of abusers of volatile solvents and aerosols are children. Males still outnumber females in abusing these substances.

The third subcategory, the <u>anesthetic gases</u>, includes substances that are less frequently abused than are volatile solvents or aerosols. The anesthetic gases are drugs that abolish pain, and they are used medically for that purpose during surgery. Anesthetic gases that are sometimes abused include ether, chloroform, amyl nitrite, butyl nitrite, isobutyl nitrite and nitrous oxide. Adults may be more frequent users of the anesthetic gases.

There is an important distinction between the Anesthetic Gases and the other two subcategories of Inhalants. The Volatile Solvents and the Aerosols usually cause elevated blood pressure. But the Anesthetic Gases usually cause blood pressure to become <u>lower</u> than normal. Apparently, this is due to the fact that the Anesthetic Gases restrict the pumping action of the heart, so that the heart cannot constrict as forcibly as it usually does. The result is that blood pressure drops. Pulse rate, however, usually is <u>increased</u> by all three subcategories of Inhalants.

Some Inhalant users prefer to put their Inhalants in a plastic bag, others soak rags or socks and then sniff the fumes. Many abusers use everyday items such as aluminum cans, balloons or other containers in an attempt to conceal their use and concentrate the fumes. Some common street names that Inhalant users use are, "Huffing", "Hacking", "Ballooning" and "Glading".

#### B. Possible Effects of Inhalants

The effects of Inhalants vary from one substance to another. Common effects include:

- o inebriation similar to alcohol intoxication
- o bizarre thoughts
- o dizziness and numbness
- o euphoria and grandiosity
- o floating sensation
- o distorted perceptions of time and distance
- o possible hallucinations
- o antagonistic behavior
- o intense headaches
- o nausea and excessive salivation
- o drowsiness and weakness
- o light headedness
- o sensation of spinning, moving, floating
- o distorted space perception
- o altered shapes and colors

In general, persons under the influence of Inhalants will appear confused and disoriented. Their speech usually will be slurred.

## C. Onset and Duration of Inhalants' Effects

Inhalants' effects are felt virtually immediately. However, the duration of effects depends on the substance used. For example, glue, paint, gasoline and other commonly abused Inhalants usually produce effects that last from several minutes, up to eight hours depending on the substances abused and the duration of abuse. Nitrous oxide's effects typically last 5 minutes or less. The effects of amyl nitrite and butyl nitrite last from a few seconds to up to 20 minutes.

## D. Signs and Symptoms of Inhalant Overdose

Some Inhalants will depress the central nervous system to the point where respiration ceases. Others can cause heart failure. Some Inhalant overdoses induce severe nausea and vomiting, and the unconscious user may drown in his or her own vomit. Others using bags to get high may pass out then suffocate with a bag over their face. Thus, there is a significant risk of death due to Inhalant abuse.

There is evidence that long term Inhalant abuse can cause:

- o permanent damage to the central nervous system
- o liver damage
- o kidney damage
- o bone and bone marrow damage
- o greatly reduced mental and physical abilities

## E. Expected Results of the Evaluation

When a person under the influence of Inhalants is examined by a drug recognition expert, the following results generally will be found.

Horizontal Gaze Nystagmus - present.

Vertical Gaze Nystagmus · present, high dose for that particular individual.

Walk and Turn/One Leg Stand - subjects will exhibit impairment and will often take slow deliberate steps and will commonly stagger.

Romberg/Finger To Nose - subjects will exhibit impairment and will tend to sway when performing these tests.

<u>Lack of Convergence</u> - present.

<u>Pupil size</u> - normal, but may be dilated with certain specific Inhalants (anesthetic gases).

Pupil's reaction to light - slow.

<u>Blood pressure</u> - up or down. Volatile Solvents and Aerosols usually will cause elevated blood pressure, while Anesthetic Gases usually will lower the blood pressure.

Pulse rate - up.

Temperature - up, down or normal depending on the substance.

## Muscle tone - will be flaccid or normal.

# General Indicators:

- o odor of the inhaled substance
- o traces of substance around face, nose, hands or clothing
- o bloodshot watery eyes
- o confused, disoriented appearance
- o muscle tone flaccid or normal
- o flushed face, possible sweating
- o slow, thick, slurred speech (speech clears up quickly when substance is no longer being inhaled)
- o non-communicative

# Topics for study

- 1. What are the three major subcategories of Inhalants?
- 2. What is the principal active ingredient in many volatile substances?
- 3. In what important respect do the effects of Anesthetic Gases differ from the effects of Volatile Solvents and Aerosols?
- 4. Does any of the subcategories of Inhalants cause <u>pulse rate</u> to decrease?

**Drug Influence Evaluation** Evaluator BUSTRUM DRE No 42/2 Rolling Log No. 131 ₽ None Crash: O Fatal 🗆 Injury D Property Bill MORRISON Arrestee's Name (Last, First, MI) Arresting Officer (Name, ID No.) DOB BILL MONT CO. GRAVES MORRISON, Breath Results: 0,000 Refused Urine Blood Chemical Test Date Examined/Time/Location Instrument # 1234 DPD TRAFFIC DIV Time of last drink? Miranda Warning Given: \*Yes What have you eaten today? Have you been drinking? How much? D No MA 6 PM Just WATER By: R BUSTRUM HAMBURGER Are you diabetic or epileptic? Time now?
ABOUT When did you lest sleep? How long? Are you sick or injured? □ Yes PNo Are you under the care of Do you have any physical defects? U Yes No Do you take insulin? a doctor or dentist? D Yes Coordination Very DOOR OULD BARKLY STAND Are you taking any medication or drugs? a Yes • No Pace PAINT SMEARS UPPER LIP AND CHIP hemical odor Eyes: D Reddened Conjunctiva

D Normal D Bloodshot • Watery None □LEye □REye **#**Equal □ Unequal Slurges mumbles Able to follow stimulus: ₽ Yes = No Eyelids: Punil Size: Foual Corrective Lens: ☐ None
☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft Normal Droopy □ Unequal (explain) Vertical Nystagmus? O Yes One Leg Stand Right Eye **₩**Np Pulse & Time HGN Left Eye 1 2210 Lack of Smooth Pursuit Convergence Right Eye Left Eye <u>лаааЧ</u> Max, Deviation 25 Q Angle of Onset Cannot Keep Balance Romberg Bulance Walk and Turn Test Starts Too Soon\_ Approx. 1" Nine 2" Nine Sways While Balancing O Stops Walking Could not STAND Misses Heel-Toe П D Uses Arms to Balance **STORPED** Steps Off Line D □ Hopping Raises Arms Puts Foot Down Actual Steps Taken Cannot Do Test (Explain)
UNABLE TO STAND
HEEL-TOE Describe Turn Type of Footwear \_Estimated At 30 Sec. Nasal Area DROP UPDER LIP Pupil Size Room Light Darkness paint Direct USCO Right △ Left

HADraw lines from spot touched Left Eye 6.5 3.5 4.0 Oral Cavity OdoR palmof Right Eye 3.5 03 Reaction To Light 6.5 4.0 Toul 10 ON AIT Rebound Dilation Hippus DYes 🗷 No ....No e5 NORMAL PAINT SMEARS MOHT ARM Paint smears @ /3\  $\bigcirc$ 4 Smear Adminstered Temp 98.6 140 100 Muscle Tone: Normal □ Flaccid □ Rigid Attach Photos Of Fresh Puncture Marks Comments: What Medicine or Drug Have You Been Using? Time of Use? Where Were The Drugs Used? (Location) How Much? Notmuch Eval Start Time SNIFFED a little Gold ABOUT S Time Completed 245 Date/Time of Arrest

1-2-2-000

Member Signature Archy 2130 ID No. 4012 n PCP D Rule Out Opinion of Evaluator: □ Alcohol O Stimulant ■ inhaiant Narcotic Analgesic C Cannabia G Medical D Depressant ti Haliucinogen

|                        | DRUG INFLUENCE EVALUATION   | Page <u>2</u> of <u>2</u>                                  |
|------------------------|---|--|
| LOG NO.                | DRE: Sgt. Rob Bustrum   | ARRESTEE: Jay Graves                                       |
| 5 INITIAL ORSERVATIO   | ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS 7. PSYCHO<br>1 10. SUSPECTS STATEMENTS 11. OPINIC | PHYSICAL 8. CLINICAL INDICATORS                            |
| 1. LOCATION: Exami     | nation of Jay Graves took place in the DPD  | Traffic Div.   |
| 2. WITNESS: Arresting  | g Officer Bill Morrison, Mont. Co.  | •  |
| 3. BREATH TEST: A      | rresting Officer Bill Morrison administered   | breath test to Graves the result was 0.00%.                |
| 4. NOTIFICATION/       | INTERVIEW of ARRESTING OFFICER  | R: Writer was contacted by radio and advised               |
| to return to the holdi | ing facility to conduct a DRE evaluation. O   | fficer Morrison stated he had arrested the subject for     |
| failing to obey a traf | fic control device, at Colfax and 6th Ave. S  | Subject was cooperative, dazed, and unable                 |
| to perform the SFST    | 's. A can of Krylon Gold spray paint was fo   | ound on the front seat of the subjects vehicle along       |
| paint soaked rags.     |   |  |
| 5. INITIAL OBSERV      | ATIONS: Writer observed subject seated in   | n the DRE room, he appeared passive and dazed.             |
|                        | isible on his hands chin and upper lip.   | ·  |
| 6. MEDICAL PROBL       | EMS: None noted or stated   |  |
| 7. PSYCHOPHYSICA       | AL TESTS: Romberg Balance: Subject un   | able to perform test, and it was terminated for his        |
|                        |   | as terminated for his safety. One Leg Stand: Subject       |
|                        |   | nger to Nose: Subject was seated and used the palm         |
|                        | his nose on each attempt.   |  |
| 8. CLINICAL INDIC      | ATORS: Subject had HGN, and Lack of C   | Convergence. His pulse and blood pressure were             |
| above the normal ra    |   |  |
| 9. SIGNS of INGEST     | TION: Subject's breath had a strong chemic  | al odor "like paint." There were paint smears on his       |
| face and hands.        |   |  |
| 10. STATEMENTS: S      | Subject was asked "how much paint did you   | a sniff today?" He replied, "I sniffed a little gold - not |
|                        |   | sniffed, he replied, "about 8 o'clock in the park".        |
|                        | ALUATOR: In my opinion Jay Graves is u  |  |
| unable to operate a    | •   |  |
|                        | AL SAMPLE: Subject agreed to provide a  | urine sample.  |
| 13. MISCELLANEO        |   |  |
|                        |   |  |
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**Drug Influence Evaluation** DRE No 0666 Rolling Log No. O Property O Fatal Ģ Injury Arresting Officer (Name, ID No.) DOB Sex LOMBARDI. Newfort PD 9-1-84 Breath Results: 0.030 Refused □ Refused Instrument # 1234 -7-2000 Time of last drink? Have you been drinking?
COUPLE OF
School WINE COOLERS How much? O No What have you eaten today? Miranda Warning Given: MPM Some PIZZA Lombard Are you diabetic or epileptic? O No How long? Are you sick or injured? When did you last sleep? □ Yes ■No Feel DIZZY AND WOOZY Do you have any physical defects? O Yes Are you under the care of Do you take insulin? a doctor or dentist? DYes Coordination STAGGERING Are you taking any medication or drugs? O Yes No CONPERATIVE VERY Slow To Respond GASOLING Eyes: O Reddened Conjunctiva
O Normal Bloodshot O Watery Speech **♠** Equal □ Unequal None □LEye □REye Slow Slurged AND LOW Pupil Size: Equal

Unequal (explain) Able to follow stimulus; ➤ Yes O No Eyelids: Corrective Lens: ▶ None
□ Glasses □ Contacts, if so □ Hard □ Soft Normal Droopy Vertical Nystagmus? □ Yes . . No One Leg Sta HGN Left Eye Right Eye Pulse & Time 1,100,2010 Lack of Smooth Pursuit Yes Yes Convergence Left Eye Right Eye 2100,2024 Max. Deviation 425 Yes 12036 Angle of Onset Cannot Keep Balance\_\_\_\_\_ Walk and Turn Test Romberg Balance Starts Too Soon 2<sup>rd</sup> Nine 1" Nine Stops Walking Missea Heel-Toe O Uses Arms to Balance Steps Off Line  $\mathcal{V}\mathcal{V}\mathcal{V}$ □ Hopping STAGETED Raises Arms
STAGETED Actual Steps Taker D Puts Foot Down 6 Type of Footwear Cannot Do Test (Explain) Test Internal Clock Describe Turn Stobbed myes reakly \_Estimated At 30 Sec. Tennis Shoes Nasal Area Runny NOSC Ador OF GASOLINE Room Light Darkness Direct Pupil Size ○ Right △ Left Left Eye Draw lines from spot touched Oral Cavity OdoR Right Eye Rebound Dilation Hippus □ Yes • No □ Yes PNo ♨ Temp 98.8 . 104 Muscle Tone: Wormal O Flaccid C Rigid Attach Photos Of Fresh Puncture Marks Comments: Where Were The Drugs Used? (Location) Time of Use? What Medicine or Drug Have You Been Using? How Much? do H tonia didn't Sniff AN' HNG Time Completed Eval Start Time Date/Time of Arrest 192 <sup>™</sup>1411 O PCP Inhalant Opinion of Evaluator: O Alcohol O Stimulant D Narcotic Analgesic □ Cannabis

□ Medical

D Depressant

□ Hallucinogen

|                        | DRUG INFLUENCE EVALUATION  | Page_2_of_2   |  |  |
|------------------------|--|---|--|--|
| LOG NO.                | DRE: Jose Zarraga  | ARRESTEE: C. Mashburn                                 |  |  |
| A INITIAL OBSERVATIO   | SSS 3. BREATH TEST 4. NOTIFICATION / 3<br>DNS 6. MEDICAL PROBLEMS 7. PSYCHOL<br>1 10. SUSPECTS STATEMENTS 11. OPINIC | PHYSICAL 8. CLINICAL INDICATORS                       |  |  |
| 1. LOCATION: Examin    | nation of C. Mashburn took place in the DR   | E room, Central Testing Unit, Stockton P.D.           |  |  |
| 2. WITNESS: Arnie Tro  | otter, California Office of Traffic Safety   |   |  |  |
| 3. BREATH TEST: W      | riter administered breath test to Mashburn   | the result was 0.03%.                                 |  |  |
| 4. NOTIFICATION / I    | INTERVIEW of ARRESTING OFFICER   | R: Writer was the arresting officer.                  |  |  |
| 5. INITIAL OBSERVA     | ATIONS: Writer observed subject walking  | northbound in the northbound lane of traffic on State |  |  |
| St. Vehicular traffic  | was moderate to heavy, and oncoming vehi   | cles were forced to swerve to avoid her. She was      |  |  |
| staggering, stumbling  | g, and reeling as she walked.  |   |  |  |
| 6. MEDICAL PROBL       | EMS: None noted or stated  |   |  |  |
| 7. PSYCHOPHYSICA       | AL TESTS: Romberg Balance: Subject swa   | ayed approximately 3" in a circular manner, nearly    |  |  |
| fell and estimated 19  | seconds as 30 seconds. Walk and Turn: Su   | bject lost his balance during the instructions,       |  |  |
| staggered and nearly   | fell. The test was terminated for subject's  | safety. One Leg Stand: Test was                       |  |  |
| terminated for the sul | bject's safety. Finger to Nose: Subject was s  | eated, and missed the tip of her nose each time.      |  |  |
| On #5 and #6 subject   | t used the wrong finger.   |   |  |  |
| 8. CLINICAL INDICA     | ATORS: Subject had HGN, and Lack of C  | onvergence. Her pulse and blood pressure were         |  |  |
| above the normal ra    | nge.   |   |  |  |
| 9. SIGNS of INGEST     | TON: Subject's breath had a strong odor of   | gasoline.   |  |  |
| 10. STATEMENTS: S      | Subject was asked "where did you sniff the g   | asoline?" She replied, "I didn't sniff anything, I    |  |  |
| don't do gas." Su      | bject was then told that there was an odor of  | gasoline on her breath and asked "what time did       |  |  |
| you sniff the gas?"    | " She replied, "I didn't do it tonight."   |   |  |  |
| 11. OPINION of EVA     | LUATOR: In my opinion C. Mashburn is   | under the influence of Alcohol and an Inhalant        |  |  |
|                        | ate a vehicle safely.  |   |  |  |
| 12. TOXICOLOGICA       | AL SAMPLE: Subject agreed to provide a   | urine sample.   |  |  |
| 13. MISCELLANEO        | US:  |   |  |  |
| -                      |  | ·   |  |  |
| ·                      |  |   |  |  |
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# SESSION XX

PRACTICE: VITAL SIGNS EXAMINATIONS

# SESSION XX PRACTICE: VITAL SIGNS EXAMINATIONS

Upon successfully completing this session, the participants will be able to:

- o Conduct examinations of pulse, blood pressure, and temperature.
- o Articulate the vital signs examination procedures.
- o Document the results of the vital signs examinations.

In this session, you will have opportunities to practice taking measurements of pulse, blood pressure and temperature. You will work in a team with two or three students, taking turns measuring these vital signs on each other. When it is not you turn to serve either as the test administrator or the test subject, you should closely observe your teammate who is administering the examinations and offer any coaching that seems appropriate.

In preparation for this session, make sure you can do the following:

- o Locate the radial, brachial and carotid artery pulse points.
- o Position the blood pressure cuff properly on a subject's arm.

# VITAL SIGNS EXAMINATIONS DATA SHEET

| EXAMINER'S NAME    |                             |
|--------------------|-----------------------------|
| DATE//             | •                           |
|                    |                             |
| PULSE MEASUREMENTS | BLOOD PRESSURE MEASUREMENTS |
| SUBJECT'S NAME     | SUBJECT'S NAME              |
| TIME               | TIME                        |
|                    | SYSTOLIC                    |
| BEATS PER MINUTES  | DIASTOLIC                   |
|                    |                             |
| SUBJECT'S NAME     | SUBJECT'S NAME              |
| TIME               | TIME                        |
| PULSE POINT USED   | SYSTOLIC                    |
| BEATS PER MINUTES  | DIASTOLIC                   |
|                    |                             |
| SUBJECT'S NAME     | SUBJECT'S NAME              |
| TIME               | TIME                        |
| PULSE POINT USED   | SYSTOLIC                    |
| BEATS PER MINUTES  | DIASTOLIC                   |

SESSION XXI CANNABIS

#### SESSION XXI CANNABIS

Upon successfully completing this session, the participants will be able to:

- o Explain a brief history of Cannabis.
- o Identify common names and terms associated with Cannabis.
- o Identify common methods of administration for Cannabis.
- Explain the symptoms, observable signs and other effects associated with Cannabis.
- Explain the typical time parameters, i.e., onset and duration of effects, associated with Cannabis.
- o State the clues that are likely to emerge when the drug evaluation and classification process is conducted for a person under the influence of Cannabis.
- o Correctly answer the "Topics for Study" questions at the end of this session.

#### A. Overview of Cannabis

"Cannabis" is the category of drugs that derive primarily from various species of Cannabis plants. Two species that supply much of the abused Cannabis are Cannabis Sativa and Cannabis Indica. Some jurisdictions as well as botanists don't recognize Cannabis Indica as a separate species. The active ingredient in these drugs is:

Delta-9 Tetrahydrocannabinol (abbreviated Δ-9 THC, or simply "THC")

THC is found principally in the leaves and flowers of the plant, rather than the stems or branches. Different varieties of Cannabis plants have different concentrations of THC. A variety that has a relatively high concentration of THC is the <u>Sinsemilla</u> (the unfertilized female) plant, a type of Cannabis Sativa having very tiny seeds. ("Sinsemilla" is a Spanish expression for "without seeds".)

Cannabis has some limited medical applications. It lowers intra-ocular pressure, and can be helpful for glaucoma patients. It suppresses nausea, and sometimes is recommended for cancer patients to relieve the nausea that accompanies chemotherapy.

There are four principal forms of the drug Cannabis.

Marijuana consists of the dried leaves of the plant.

<u>Hashish</u> basically is a concentrated version of marijuana. It is produced by crushing and boiling the leaves and allowing them to dry into a semi-solid mass.

<u>Hashish oil</u> is a liquid extracted from hashish. It is also known as Hash Oil.

<u>Marinol</u> (also known as Dronabinol) is a synthetic form of THC that is not derived from Cannabis plants. Marinol is a prescriptive drug. It is sometimes administered to cancer patients to suppress the nausea that may accompany chemotherapy. Nabilone is a synthetic form of THC and is used as an antivomiting agent.

Marijuana usually is smoked. Marijuana, hashish and hash oil also can be taken orally, e.g., baked in cookies or brownies and eaten. Marinol is taken orally.

## B. Possible Effects of Cannabis

Cannabis appears to interfere with a person's ability or willingness to pay attention. People under the influence of marijuana do not divide their attention very well. When driving, they may attend to certain parts of the driving task but ignore other parts. For example, they may continue to steer the car but ignore stop signs, traffic lights, etc.

Because Cannabis impairs attention, divided attention tests are excellent tools for recognizing people who are under the influence of this category of drug.

# C. Onset and Duration of Cannabis' Effects

Persons begin to feel and exhibit marijuana's effects within 8-9 seconds after inhaling the smoke. The effects usually reach their peak within 10-30 minutes, and the effects generally continue for 2-3 hours. The user typically feels "normal" within 3-6 hours after smoking marijuana. There are studies that indicate that the user may be impaired long after the euphoric feelings have ceased.

It is important to understand that some blood and urine tests may continue to disclose evidence of the use of marijuana long after the effects of marijuana have dissipated. That is because certain chemical tests do not seek to find THC itself, but instead look for <u>metabolites</u> of THC, or chemical by-products. Some blood tests may disclose marijuana use for at least 3 days after smoking. Some urine tests may indicate the presence of THC metabolites for 28-45 days.

There are two important metabolites of THC. One of these metabolites is <u>Hydroxy THC</u>; this causes the user to feel euphoric so that they are aware of the effects. Hydroxy THC usually is eliminated from the blood plasma within six hours. The other important metabolite is <u>Carboxy THC</u>. There is no evidence at this time that this metabolite is psychoactive. Carboxy THC may be found in the blood plasma for several days following marijuana use.

# D. Signs and Symptoms of Cannabis Overdose

Excessive use of marijuana can create paranoia and possible psychosis. These same effects may develop from long term use of the drug, which has also been observed to produce sharp personality changes, especially in adolescent users. Other long term effects include:

- o lung damage
- o chronic bronchitis
- lowering of testosterone (male sex hormone)

- acute anxiety attacks
- o chronic reduction of attention span
- o possible birth defects, still births and infant deaths

# E. Expected Results of the Evaluation

When a person under the influence of Cannabis is examined by a drug recognition expert, the following results generally can be expected.

Horizontal Gaze Nystagmus - none.

Vertical Gaze Nystagmus - none.

Lack of Convergence will be present.

Pupil size will be dilated, but possibly normal. Rebound dilation may be observed.

Pupil's reaction to light will be normal.

Pulse rate will be up.

Blood Pressure will be up.

Temperature will be normal.

Injection sites usually will not be found.

# General Indicators:

- o diminished inhibitions
- o impaired perception of time and distance
- o disorientation
- o body tremors
- o eyelid tremors
- o marked reddening of the conjunctiva of the eye
- o muscle tone is normal
- o odor of burnt marijuana on suspect's breath or clothes
- o possible marijuana debris in the suspect's mouth

#### Topics for study

- 1. What is the active ingredient in Cannabis?
- 2. Why are the Walk and Turn test and the One Leg Stand test excellent tools for recognizing persons under the influence of marijuana?
- 3. What is Marinol? What is Sinsemilla?
- 4. Name two important metabolites of THC, and describe how they affect the duration and perception of the effects of Cannabis.

**Drug Influence Evaluation** Rolling Log No - 025 DRE No MURRAY D Property Bursten, Dave 🛘 Injury o Fatal Arresting Officer (Name, ID No.) BURSTEN Chemical Test Breath Results: ().(0) - Refused Instrument#1234 O Refused Have you been drinking? Time of last drink? How much? When? D No Miranda Warning Given: **♣**Yes Around 5pm NA Nothina ALAI) Are you diabetic or epileptic? Are you sick or injured? When did you last sleep? Yes 18No ARE YOU?
Are you under the care of a doctor or dentist? U Yes And I Con't take a lot of State of the property of the propert Coordination Nearly Fell Several IY Cooperative Hell NO Blindness: ■ Equal □ Unequal None □LEye □REye O Normal Bloodshot D Watery Eyelids: Able to follow stimulus: Yes a No ©Normal □ Droopy G Glasses C Contacts, if so G Hard G Soft □ Ûnequal (explain) One Leg Stand Vertical Nystagmus? D Yes ■ No Right Eye Left Eye Pulse & Time HGN Convergence Right Eye Lack of Smooth Pursuit ND ND Max. Deviation ND (GP Q None Angle of Onset Cannot Keep Balance 🚺 🗸 near BAOLY . NEARLY Walk and Turn Test Romberg Balance Starts Too Soon '1" Nine 2" Nine D Sways While Balancing LL Stops Walking erminakt O □ Uses Arms to Balance Misses Heel-Toe 1 Steps Off Line VV O Hopping Raises Arms , Test Stat D Puts Foot Down Actual Steps Taker Cannot Do Test (Explain) Nearly Fell Describe Turn N A Estimated At 30 Sec. Test Terminated OAFERS Nasal Area CLEAR Darkness Pupil Size Room Light ○ Right △ Left Left Eve 4.0 50-25 Oral Cavity Draw lines from spot touched Right Eye 7.0 Rebound Dilation □ Yes •No Hippus #Yes □ No JORMA (2)98.6. 100 Тешр\_ Blood Pressure, Muscle Tone: WNormal | | Flaccid | | Rigid Attach Photos Of Fresh Puncture Marks Comments: Where Were The Drugs Used? (Location) How Much?
A Little
no DRE Notified What Medicine or Drug Have You Been Using?
DON'T HASSLE ME.
THIS IS BS J Time of Use? NC I AIN'+ SAYING NOW Eval Start Time Date/Time of Arrest ID No. 4664 D Inhalant □ Stimulant □ Rule Out □ Alcohol Opinion of Evaluator. Cannabis □ Narcotic Analgesic 🛮 Hallucinogen D Medical 🗆 Depressant

| DRUG INFLUENCE EVALUATION Page 2 of 2  |  |  |  |  |  |
|--|--|--|--|--|--|
| LOG NO. DRE: Murray Conrad ARRESTEE: Ken Clark   |  |  |  |  |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |  |  |  |  |  |
| 1. LOCATION: Examination of Ken Clark took place in the DRE room, Marion County Jail.  |  |  |  |  |  |
| 2. WITNESS: Arresting Officer: Trooper David Bursten, Indiana State Police   |  |  |  |  |  |
| 3. BREATH TEST: Arresting officer administered breath test to Clark the result was 0.00%.  |  |  |  |  |  |
| 4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised  |  |  |  |  |  |
| to return to the holding facility to conduct a DRE evaluation. Trooper Bursten stated he had observed the subject for  |  |  |  |  |  |
| operating a vehicle at a high rate of speed east bound on Purdue Ave. and weaving around slower traffic. Subject   |  |  |  |  |  |
| seemed unconcerned about being stopped and readily admitted driving fast. Subject stated, "I'm just out  |  |  |  |  |  |
| to enjoy myself tonight!"  |  |  |  |  |  |
| 5. INITIAL OBSERVATIONS: Writer observed subject seated in the breathalyzer room and was laughing loudly and   |  |  |  |  |  |
| repeatedly saying "The machine says I'm not drunk." There was also reddening of the conjunctiva.   |  |  |  |  |  |
| 6. MEDICAL PROBLEMS: None noted or stated  |  |  |  |  |  |
| 7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject unable to perform test, and it was terminated for his  |  |  |  |  |  |
| safety. Walk and Turn: Subject unable to perform test, and it was terminated for his safety. One Leg Stand: Subject  |  |  |  |  |  |
| unable to perform test, and it was terminated for his safety. Finger to Nose: Subject was seated and missed the tip of   |  |  |  |  |  |
| his nose on each attempt. Subject also exhibited eyelid tremors.   |  |  |  |  |  |
| 8. CLINICAL INDICATORS: Subject had lack of convergence, pupils were dilated in near total darkness and  |  |  |  |  |  |
| rebound dilation was observed. Subject's pulse and blood pressure were above the normal range.   |  |  |  |  |  |
| 9. SIGNS of INGESTION: Subject's breath had an odor of marijuana.  |  |  |  |  |  |
| 10. STATEMENTS: Subject initially denied using any drugs. When told he looked and acted like someone who had   |  |  |  |  |  |
| smoked marijuana, he gigled and said, "come on, don't hassle me: this is bullshit." When asked how much pot he   |  |  |  |  |  |
| smoked, he replied, "not much just a little." When asked where he smoked, subject paused and said, "No, I ain't  |  |  |  |  |  |
| saying no more."   |  |  |  |  |  |
| 11. OPINION of EVALUATOR: In my opinion Ken Clark is under the influence of a Cannabis   |  |  |  |  |  |
| and unable to operate a vehicle safely.  |  |  |  |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.  |  |  |  |  |  |
| 13. MISCELLANEOUS: Subject maintained a jovial and boisterous attitude throughout the entire evaluation  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

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**Drug Influence Evaluation** Rolling Log No - 0/29 DRE No 1/27 Evaluator John, Clark None Injury D Property Arresting Officer (Name, ID No.) Graham, G. M703 CHP Peltier, Charles E. 5-16-1970 M Breath Results 0.00 Refused Chemical Test **‡**Urine □ Blood Date Examined/Time/Location Instrument # 9-11-2000 Time of last drink? Have you been drinking? Yel How much? Miranda Warning Given: \*Yes ONo By: C John 3 hrsano Couple glasses wine Z O Yes SNo NO and Are you diabetic or epileptic? NO WAY
O Yes SNo
O Yes SNo
O Yes SNo
O Yes SNo
Are you under the care of
a doctor or dentist?

O Yes SNo When did you last sleep? How long? Are you sick or injured? Im not drunk either 5 hrs. Do you have any physical defects? UYes KNo I don't take anything.

Are you taking any medication or drugs? O Yes KNo Attitude Impatient, anxious
Cooperative
Breath ODOR OF AN ACCOHOLIC
Eyes: O Reddened Conjunctiva
Blindner Coordination Very OFacursenot Normal Blindness: Tracking: Speech O Normal Bloodshot DWater hot b None OLEye OREye #Equal # Unequal Slow Sturred Able to follow stimulus: Yes O No Evelids: Corrective Lens: A' None

☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft Pupil Size: REqual ▶Normal □ Droopy □ Unequal (explain) One Leg Stand □ No Right Eye Vertical Nystagmus? D Yes Left Eye (25) 2330 425 4es Lack of Smooth Pursuit Convergence Right Eye Left Eye 405 Yes Max. Deviation ---NONE NONE Angle of Onset Leg Tremors Leg tremois Cannot Keep Balance, Romberg Balance Starts Too Soon WSways While Balancing l" Nine Stops Walking /// Uses Arms to Balance walked very slowly Misses Heel-Toe Steps Off Line O Hopping Raises Arms Puts Foot Down Actual Steps Taker Describe Turn Staggered 2 Cannot Do Test (Explain) 2 Estimated At 80 Sec. ps to the right Running shoes 11 4 Darkness Direct Pupil Size Room Light ○ Right △ Left Left Eye 7.5 5.0 Draw lines from spot touched Right Eye 5.5 7.5 Reaction To Light Hippus O Yes □Yes 🕰 No #No <u>/1`</u> (2)(4)Temp\_ Muscle Tone: R Normal D Placeid D Rigid Attach Photos Of Fresh Puncture Marks Comments: Time of Use? Smile Where Were The Drugs Used? (Location)

BSE S a Oh Come on Imnot go! What Medicine or Prug Have You Been Using? . How Much? That a few glasses of wine thata Oh come on Imnot going to tell. te/Time of Arrest 2245 D No.//17 Member Signature (Include Rank) o PCP C Inhalant C Stimulant 🗆 Rule Out MAlcohol Opinion of Evaluator: □ Hallucinogen D Narcotic Analgesic □ Medical □ Depressant

# DRUG INFLUENCE EVALUATION .

Page\_2\_of\_2

LOG NO.

DRE: Sgt. Clark John

ARRESTEE: Charles E. Peltier

- 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR.
  5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS
  9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC.
- 1. LOCATION: Examination of Charles E. Peltier, took place in the DRE room, Parker Center, LAPD
- 2. WITNESS: Arresting Officer was Sgt. Gordon Graham, CHP
- 3. BREATH TEST: Sgt. Graham administered breath test to Peltier, the result was 0.06%.
- 4. NOTIFICATION / INTERVIEW of ARRESTING OFFICER: Writer was contacted by radio and advised to return to Parker Center to conduct a DRE evaluation. Sgt. Graham stated he had observed the subject traveling southbound on the San Diego Fwy. operating a vehicle with no head or tail lights. Upon stopping the vehicle, the subject stated, "hey I can see fine I don't need any f'ing lights cowboy!" Subject further stated "cute little bow tie --- you must be Little Bow Peep.
- 5. INITIAL OBSERVATIONS: Writer observed the subject seated in the breath testing room. Subject appeared anxious, impatient, and several times asked to be "let go". Generally he was polite and cooperative. His speech was slow and slurred, and he stumbled while walking,
- 6. MEDICAL PROBLEMS: None noted or stated
- 7. PSYCHOPHYSICAL TESTS: Romberg Balance: Subject swayed approximately 3" in a circular motion, and exhibited eyelid tremors, and estimated 42 seconds as 30 seconds. Walk and Turn: Subject lost his balance during the instructions, staggered while turning, raised arms and missed heel to toe.

One Leg Stand: Subject raised his arms, swayed, put his foot down, and exhibited leg tremors. Finger to Nose: Subject missed tip of his nose five times and exhibited eyelid tremors.

- 8. CLINICAL INDICATORS: Subject's pulse and blood pressure were above the normal range. His pupils were dilated, there was lack of convergence, and HGN was present. There was also a reddening of the conjunctiva.
- 9. SIGNS of INGESTION: Subject had a brownish coloration on his tongue.
- 10. STATEMENTS: Subject admitted to drinking "a few glasses of wine" When subject was asked, "when did you smoke the marijuana?" He responded, "I guess I can't bullshit a bullshitter, can I?" "marijuana? who me?" and then laughed. When asked where he had used the marijuana, the subject replied, "oh, come on, I'm not going to tell you."
- 11. OPINION of EVALUATOR: In my opinion Charles E. Pelner is under the influence of Alcohol and Cannabis and unable to operate a vehicle safely.
- 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample.
- 13. MISCELLANEOUS:

**Drug Influence Evaluation** Rolling Log No. DRE No Evaluator 5158 XX1-3 Recorder/Witness PRYOR Crash: None Injury O Property O Fatal DOB Arresting Officer (Name, ID No.) Race Arrestee's Name (Last, First, MI) Sex CHP \* 13505 10/5/63 3 WRIGHT JAMES B w FLAHAVAN TEM Date Examined/Time/Location Chemical Test XUrine □ Blood Breath Results: □ Refused □ Refused Instrument# C12835A 0.00 12-7-96 2300 AMADOR CHP OFFICE Have you been drinking? How much? Time of last drink? What have you eaten today? Miranda Warning Given: X Yes O No When? BY: OFC. FLAINUAN NOTHING I DON'T DEIDE COUPLE OF BURLERS Are you diabetic or epileptic? Time now? When did you last sleep? How long? Are you sick or injured? ⊽Yes ⊭No O Yes KNo 9 HRS I'M JUST FINE LAST NIGHT THO WIGH Are you under the care of a dector or dentist? C Yes No O Yes KNo Do you have any physical defects? O Yes No Do you take insulin? Attitude RELAXES CARE FRZE, GENERALLY COURERTINE Coordination Are you taking any medication or drugs? I Yes No Generally STUMBULLE 700R OF COURSE NOT DURMAL Tracking: Eyes: Reddened Conjunctiva . Blindness: Speech Ø(None □LEye □REye KEqual □ Unequal O Normal MBloodshot O Watery SLOW & DELIBERATE Corrective Lens: Able to follow stimulus: Y Yes O No Eyelids: Pupil Size: XEqual **5**√None D Glasses D Contacts, if so D Hard D Soft D Unequal (explain) Normal Droopy One Leg Stand Vertical Nystagmus? □ Yes 💢 No Pulse & Time HGN Left Eye Right Eye (jc) 108 1 3301 Lack of Smooth Pursuit Convergence NO こり Left Eye Right Eye 110/2318 Max. Deviation NΦ 108,2325 Angle of Onset عدسد NONE Walk and Turn Test 112510-X-17005 Romberg Balance. REPERTED Cannot Keep Balance\_ Starts Too Soon Approx. Approx. 1st Nine 2nd Nine Sways While Balancing Stops Walking Uses Arms to Balance Misses Heal-Ton ALL Steps Off Line D Hopping Raises Arms IJ D Puts Foot Down Actual Steps Taken 9 ٩ Type of Footwear Cannot Do Test (Explain) Describe Turn SWINEL AROUT FACE ABZUPT \_5\ Estimated At 30 Sec. N/A LOAGERS EYELID TREMOS O Right A Left Nasal Area Room Light Direct Pupil Size Darkness CHUCKLING THE TEST CUBAR\_ Left Eye Oral Cavity BITS OF L. O 50 -7.0 Draw lines from spot touched 7.5 GREEN LEAFY MATERIA Right Eye 50-70 7.5 6.0 Rebound Dilation Reaction To Light Hippus O Yes X/No ≱Yes □ No NOZMAL LEFT ARM 2 <sup>7</sup>6\ ARMS HERY SLUWLY Blood Pressure 140 / 96 Temp 98.8 Muscle Tone: Normal OF laccid ORigid Attach Photos Of Fresh Puncture Marks Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? How Much? Time of Use? TOOK I NO "SMUKE?" "WHO ME?" sevenpes, HAH, HAH 11211 (ज्हार, KANNO لام (عوت ر Eval Start Time Date/Time of Arrest Time DRE Notified Time Completed 2300 <u> 2330</u> 3240 <u>ラップララ</u> Reviewed By: Vember Signature (Include Rank) シャントル Opinion of Evaluator: G Rule Out □ Stimulant □ Inhalant D Alcohal □ Hallucinogen □ Medical Narcotic Analgesic □ Cannabis ti Depressant

|                         | DRUG INFLUENCE EVALUATION   | Page <u>1</u> of <u>2</u>                             |
|-------------------------|---|---|
| LOG NO.                 | DRE: Sgt. Mike Pryor  | ARRESTEE: James B. Wright                             |
| 5. INITIAL OBSERVATION  | ESS 3. BREATH TEST 4. NOTIFICATION /<br>ONS 6. MEDICAL PROBLEMS · 7. PSYCHO<br>N 10. SUSPECTS STATEMENTS 11. OPINIO | PHYSICAL 8. CLINICAL INDICATORS                       |
| 1. LOCATION: Exami      | nation of James B. Wright, took place in the  | e DRE room, Colonie Police Department                 |
| 2. WITNESS: Arresting   | g Officer Tom Flahavan, CHP   |   |
| 3. BREATH TEST: O       | fficer Flahavan administered breath test to V   | Wright, the result was 0.00%.                         |
| 4. NOTIFICATION /       | INTERVIEW of ARRESTING OFFICE   | R: Writer was contacted by radio and advised          |
| to return to the Depa   | artment to conduct a DRE evaluation. Troop  | per Kennedy stated he had observed the subject        |
| operating a vehicle a   | at a very slow rate of speed (15/55) southbo  | und on St. Rt 22. When the emergency lights were      |
| activated, subject's    | vehicle slowly drifted left, crossing the north   | hbound lane, through a low hedge and finally coming   |
| to rest in a corn field | 1. Subject climbed out of the vehicle laughi  | ng.   |
| 5. INITIAL OBSERV       | ATIONS: Writer observed the subject seate   | ed int he breath testing room. Subject was humming    |
| softly. While interv    | iewing Trooper Kennedy, the subject shoute  | ed, "Hey Brian, tell him about my wild ride tonight!" |
| 6. MEDICAL PROBL        | EMS: None noted or stated   |   |
| 7. PSYCHOPHYSICA        | AL TESTS: Romberg Balance: Subject sw   | ayed approximately 2" in a circular motion, and       |
| exhibited eyelid trem   | nors, and estimated 51 seconds as 30 second   | s. Walk and Turn: Subject lost his balance during the |
| instructions, started   | walking to soon, raised arms repeatedly, an   | d never touched heel to toe. Subject twice            |
| requested that the in   | structions be repeated. One Leg Stand: Subj   | ect raised his arms, put his foot down, and swayed.   |
| Finger to Nose: Sub     | ject missed tip of his nose each time.  |   |
| 8. CLINICAL INDICA      | ATORS: Subject's pulse and blood pressur  | e were above the normal range. His pupils were        |
| . dilated they exhibite | d rebound dilation and there was lack of co   | nvergence.  |
| 9. SIGNS of INGEST      | ION: Subject's breath had an odor of marij  | uana and there were bits of green vegetation on       |
| tongue and between      | ı the teeth.  |   |
| 10. STATEMENTS: S       | Subject was asked, "when did you smoke the  | e marijuana?" He résponded, "what? smoke              |
| marijuana? who m        | e?" and then laughed. When asked where h  | e had used the marijuana, the subject replied, "oh, I |
| don't know. Oh g        | ee, seriously, I can't remember."   |   |
| 11. OPINION of EVA      | LUATOR: In my opinion James B. Wrigh  | t is under the influence of Cannabis                  |
| and unable to oper      | ate a vehicle safely.   |   |
| 12. TOXICOLOGICA        | AL SAMPLE: Subject agreed to provide a a  | rine sample.  |
| 13. MISCELLANEOU        | US: Subject exhibited eyelid tremors and ch   | uckled throughout the evaluation.                     |
|                         |   |   |
|                         |   |   |
|                         |   |   |

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<u>:</u>

# SESSION XXII

OVERVIEW OF SIGNS AND SYMPTOMS

# SESSION XXII OVERVIEW OF SIGNS AND SYMPTOMS

Upon successfully completing this session, the participants will be able to:

- Name the possible effects that may be observed in each major indicator of drug impairment.
- Identify the effects that will most likely be observed with suspects under the influence of each drug category.

# Summarizing What We've Learned About The Effects of Each Category: An Exercise For The Student

We have now completed a detailed review of all seven drug categories. In this session, we will summarize what we've learned about the major indicators of drug impairment that DREs rely upon to form their opinions. We will also summarize how each drug category usually "discloses itself" on those major indicators.

The major indicators of impairment consist of eight items:

- o Horizontal Gaze Nystagmus
- o Vertical Gaze Nystagmus
- o Lack of Convergence
- o Pupil Size
- o Pupil Reaction to Light
- o Pulse Rate
- o Blood Pressure
- o Body Temperature

As a DRE, you will evaluate each of these indicators for every suspect you examine. What are the possible things that you may observe for each indicator? For example, what are the possible things that you may observe when you check a suspect for Horizontal Gaze Nystagmus? What are the possible things that you may observe when you check the suspect's blood pressure?

With HGN, there are only two possibilities: either it will be Present (i.e., the eyes will jerk) or Not Present (i.e., the eyes will move smoothly). Some drugs cause nystagmus, others do not; there is no drug that "cures" nystagmus. With Blood Pressure, there are three different things we might observe: it may be up, down, or it may be normal. Some drug categories elevate the blood pressure, others lower it; if a person is under the influence of two different drug categories, one that raises Blood Pressure and one that lowers it, it is possible that the two drugs will partly off-set each other, and the BP may be normal.

What about the other six major indicators? What are the possible things we may find with each of them? Before you turn to the next page, try to complete the list of possibilities we've started below:

| Horizontal Gaze Nystagmus? | PRESENT or NONE  |
|----------------------------|------------------|
| Vertical Gaze Nystagmus?   |                  |
| Lack of Convergence?       |                  |
| Pupil Size?                |                  |
| Reaction to Light?         |                  |
| Pulse Rate?                |                  |
| Blood Pressure?            | UP, DOWN, NORMAL |
| Body Temperature?          |                  |

How did you do? Your completed list, on the previous page, should look something like this:

| Indicator                  | Possible Effects                        |  |  |  |
|----------------------------|---|--|--|--|
| Horizontal Gaze Nystagmus? | PRESENT or NONE                         |  |  |  |
| Vertical Gaze Nystagmus?   | PRESENT or NONE                         |  |  |  |
| Lack of Convergence?       | PRESENT or NONE                         |  |  |  |
| Pupil Size?                | DILATED or NORMAL or CONSTRICTE         |  |  |  |
| Reaction to Light?         | NORMAL, SLOW, or LITTLE OR NONE VISIBLE |  |  |  |
| Pulse Rate?                | UP or DOWN or NORMAL                    |  |  |  |
| Blood Pressure?            | UP or DOWN or NORMAL                    |  |  |  |
| Body Temperature?          | UP, DOWN, or NORMAL                     |  |  |  |

Next, your instructors will expect you to be able to state how each category of drugs usually affects each of the eight major indicators. This is information that was first covered in your PRE-School, and covered in even greater detail earlier in this School. In the table below, we've listed what we can usually expect to see in suspects who are under the influence of CNS Depressants. Try to fill in the rest of the table before Session XXII is given in class.

WHAT WILL WE USUALLY SEE IN OUR SUSPECTS?

|                | 44 TTY 74 -             |        |        |         | ř      | T        | 1        |
|----------------|-------------------------|--------|--------|---------|--------|----------|----------|
|                | Depress                 | Stimul | Halluc | Phencyc | Narcot | Inhalant | Cannabis |
| HGN            | present                 |        |        |         |        |          |          |
| VGN            | present<br>*(high dose) |        |        |         |        |          |          |
| Lack<br>Conv   | present                 |        |        |         |        |          |          |
| Pupil          | normal (1)              |        |        |         |        |          |          |
| React<br>Light | slow                    | , ,    |        |         |        |          | •        |
| Pulse<br>Rate  | down (2)                |        | -      |         |        |          |          |
| Blood<br>Press | down                    |        |        |         |        |          |          |
| Body<br>Temp   | normal                  |        |        |         |        |          |          |

<sup>\*</sup> high dose for that individual

<sup>(1)</sup>Soma and Quaaludes usually dilate pupils

<sup>(2)</sup>Quaaludes and ETOH may elevate

The attachment, <u>Comparison of DRE Symptomatology With Cross Section of Drug Symptomatology Sources</u>, is a small portion of the available scientific literature addressing drug influence. The Synopsis is consistent with the DRE training.

# COMPARISON OF DRE SYMPTOMATOLOGY WITH CROSS SECTION OF DRUG

# SYMPTOMATOLOGY SOURCES

### CNS DEPRESSANTS:

DRE Symptomatology:

Nystagmus

decreased pulse uncoordinated

decreased blood pressure

disoriented

sluggish

thick slurred speech

drunk-like appearance

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Barbiturates, pages 546-547:

Nystagmus

Strabismus

difficulty in visual

accommodation

vertigo

ataxia gait

positive Romberg sign

Hypotonia

Dysmetria

Diplopia difficulty in thinking

sluggishness

poor comprehension

slowness, slurring of speech

poor memory emotional lability

faulty judgement

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 6th Ed. 1992, pp. 61-63.

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed., Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989. p.19.

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), page 36: barbiturates effects like alcohol (staggering, poor motor control).

Drug Abuse and Dependence, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), page 11: sedative hypnotics same as alcohol and other depressants

<u>Drugs of Abuse</u>, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989), page 72: Benzodiazepines same as barbiturate effects; pages 247; 292): Barbiturates:

Nystagmus depressed blood pressure incoordination depressed pulse diminished concentration decreased reaction time

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D., Ph.D., D Plenum Medical Book Company, New York (1988), p. 135.

<u>Diagnostic and Statistical Manual of Mental Disorders</u> (Third Ed, Revised), American Psychiatric Association (1987), p. 159

Maladaptive behavioral changes, e.g., disinhibition of sexual or aggressive impulses, mood lability, impaired judgment, impaired social or occupational functioning.

slurred speech unsteady gait incoordination impairment in attention or memory

### CNS STIMULANTS:

DRE Symptomatology:
dilated pupils
increased temperature
body tremors
excited
talkative
anxiety
redness to nasal area
loss of appetite
increased alertness

increased pulse rate increased blood pressure restlessness euphoric exaggerated reflexes grinding teeth runny nose insomnia

The Pharmacological Basis of Therapeutics, Seventh Edition,

Gilman, A.; Goodman, I.; MacMillan Publishing Co. 1985, Cocaine 551-554

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, Amphetamines, Page 634:

Mild influence:

Mydriasis restlessness irritability tremor Diaphoresis nausea pallor

hyperreflexia talkativeness insomnia flushing combativeness vomiting

dry mucous membranes

premature ventricular contraction

Moderate:

hyperactivity hypertension Tachycardia

chest discomfort

Profuser Diaphoresis abdominal pain

mild temperature

elevation repetitive behavior panic reactions

impulsivity hallucinations

confusion

vomiting

Tachypnea

Serious:

delirium Hyperreflexia

marked Hypertension/Tachycardia convulsions coma Hypotension

Cocaine, page 650-659

Early Stimulation:

euphoria excitement irritable behavior sudden headache vomiting

twitching of small muscles

Cocaine Psychosis

tremor elevation of pulse Garrulity apprehension Mydriasis nausea dizziness tics jerks

hallucinations increased respiration Advanced:

convulsions

decreased consciousness

Hyperreflexia

increased pulse and blood pressure

Later Stages:

Hypotension

Dyspnea et al

Hypothermia

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1992, pages 120-123: Amphetamines and cocaine (CNSS):

dilation of pupils

slight tremor agitation

increased blood pressure

restlessness

possibly hallucinations

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed., Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989, page 99: CNSS cause:

dilation of pupils

elevation of blood pressure increased body temperature

rapid heart rate tremor in hands restlessness

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), pages 25, 121: Amphetamine:

dilation of pupils

blood pressure teeth grinding

tremors

increase heart rate

flushing dry mouth

lack of coordination

pages 64, 100, 121:

dilation of pupils

increased temperature

increased heartbeat similar to Amphetamine

Drug Abuse and Dependence, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), pages 8 and 10 Cocaine and Amphetamine:

dilated pupils

increased blood pressure

agitation tremors

increased pulse vasoconstriction

increased temperature

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), page 29 Amphetamines:

pupil dilation (Mydriasis) elevated blood pressure

talkative restless

tremors

teeth grinding (Bruxism) illogical, loose thoughts

increased pulse rate

hyperactive irritable Anorexia

urinary retention

fidgety, jerky, random motions

Page 295: Cocaine:

dilated pupils increased blood pressure

Hyperpyrexia

Tachycardia vasoconstriction

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D., Ph.D., D Plenum Medical Book Company, New York (1988) page 142: Amphetamine:

increased pulse possibly increased temperature general increase in psychomotor activity

increased blood pressure increased wakefulness

page 145: Cocaine

Mydriasis (dilated pupils);

euphoria

may cause psychosis agitation

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 142.

COCAINE:

Maladaptive behavioral changes, e.g., euphoria, fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

pupillary dilation elevated blood pressure nausea or vomiting

Tachycardia perspiration or chills visual or tactile hallucinations

### AMPHETAMINE

Maladaptive behavioral changes, e.g., fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

pupillary dilation elevated blood pressure nausea or vomiting Tachycardia perspiration or chills

### HALLUCINOGENS:

DRE Symptomatology:

dilated pupils

increased blood pressure

dazed appearance Synesthesia paranoia

nausea

difficulty in speech poor perception of time/distance

increased pulse rate increased temperature

body tremors
hallucinations
uncoordinated
disoriented
perspiring

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A.; Goodman, I.; MacMillan Publishing Co. 1985, LSD and Related Drugs, page 564

pupillary dilation

Tachycardia

tremor

Piloerection

increased body temperature Hyper vigilance

loss of boundaries

increased blood pressure

Hyperreflexia

nausea

muscular weakness

hallucinations

Synesthesia

<u>Medical Toxicology-Diagnosis and Treatment of Human Poisoning</u>, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, LSD, pages 667-669:

pupillary dilation

increased body temperature

weakness Hyperreflexia

hallucinations poor judgment increased heart rate

Piloerection

tremor Ataxia

depersonalization mood swings

A Primer of Drug Action, Julien, Robert M.; W. H. Freeman and Company, New York, 1992

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed.), Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989 page 160:

dilated pupils increased awareness sensory input flushed face increased blood pressure faltered body images fine tremor increased body temperature

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney, M.D. Facts on File, Inc New York (1984), pages 100; 115 120, 153): Hallucinogens:

dilated pupils increased blood pressure profuse perspiration hallucinations increased heart rate increased temperature loss of appetite

<u>Drug Abuse and Dependence</u>, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990)

<u>Drugs of Abuse</u>, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989), page 218: LSD:

Ataxia Hyperreflexia Tachycardia high blood pressure incoordination

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Plenum Medical Book Company, New York (1988)

<u>Diagnostic and Statistical Manual of Mental Disorders</u> (Third Ed, Revised), American Psychiatric Association (1987), p. 145.

Maladaptive behavioral changes, e.g., marked anxiety or depression, ideas of reference, fear of losing one's mind, paranoid ideation, impaired judgment, impaired social or occupational functioning.

Perceptual changes occurring in a state of full wakefulness and alertness, e.g., subjective intensification of perceptions, depersonalization, derealization, illusions, hallucinations, Synesthesia

pupillary dilation sweating blurring of vision incoordination Tachycardia palpitations tremors

### PHENCYCLIDINE

DRE Symptomatology:

Nystagmus

increased blood pressure.

perspiring
blank stare
"moon walking"
incomplete responses
repetitive speech

cyclic behavior

hallucinations

increased pulse

increased temperature warm to the touch

early onset of nystagmus

difficulty in speech repetitive response

increased pain threshold

confused, agitated

possibly violent and combative

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A.; Goodman, I.; MacMillan Publishing Co. 1985, PCP, page 565-567

Nystagmus

elevated blood pressure

staggering gait

numbness of extremities

muscular rigidity

drowsiness

repetitive movements

elevated heart rate feeling of intoxication

slurred speech

sweaty

blank stare

hostile behavior

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, PCP 768-777:

Nystagmus

depressed light reflexes

diminished pain

tremors

slurred speech

increased pulse rate

Amnesia

body image distortion

depersonalization

hallucinations

Miosis

blurred vision

Ataxia

muscle weakness

drowsiness

increased blood pressure

anxiety/agitation

euphoria

disordered thought processes

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1992, page 262: PCP:

increased blood pressure disinhibition muscle rigidity delirium excitement hallucinations

hallucinations speech difficulty

elevated blood pressure

blank stare mood swings agitation

disorientation analgesia pain tolerance

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed.), Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989 p. 178

sweating

fever convulsions

muscle rigidity

increased blood pressure

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), page 100, 208: PCP:

Nystagmus

increased pulse rate mood swings

changes in body awareness

violent behavior

increased blood pressure

flushing

hallucinations speech difficulties

decreased responsiveness

<u>Drug Abuse and Dependence</u>, Grinspoon, Lester, M.D.; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), page 25: PCP:

body image distortions

Nystagmus

loss of muscle control

memory loss drooling

increased blood pressure

muscle rigidity incoherent speech

blank stare

<u>Drugs of Abuse</u>, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989) page 296: PCP:

Nystagmus

hallucination

loss of motor control automated speech Nystagmus at rest disorientation

extreme agitation disassociation from

environment

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D. Ph.D.D Plenum Medical Book Company, New York (1988), page 156: PCP:

Ataxia
muscular hypertonicity
Ptosis
Horizontal Gaze, Vertical Gaze
and Rotary Nystagmus
elevated blood pressure
mood swings

tremors, Hyperreflexia Tachycardia

<u>Diagnostic and Statistical Manual of Mental Disorders</u> (Third Ed, Revised), American Psychiatric Association (1987), p. 155.

Maladaptive behavioral changes, e.g., belligerence, assaultiveness, impulsiveness, unpredictability, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

Vertical or Horizontal Gaze Nystagmus increased blood pressure or heart rate numbness or diminished responsiveness to pain. Ataxia

Dysarthria (slurred speech)

muscle rigidity
seizures

Hyperacusis

### NARCOTICS:

DRE Symptomatology: constricted pupils decreased blood pressure Ptosis (droopy eyelids) drowsiness low, raspy speech facial itching fresh puncture marks

decreased pulse rate decreased temperature "on the nod" depressed reflexes dry mouth euphoria

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A.; Goodman, I.; MacMillan Publishing Co. 1985, Opiods page 541-545

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988; Heroin, pages 702-703. See also Methadone, Demerol, etc.:

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1992, page 196-198: Morphine:

constructed pupils

decreased blood pressure

drowsiness mental clouding Dysphoria sedation

depressed respiration

Analgesia

euphoria

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed., Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989

Decrease pain (p.6)

Encyclopedia of Drug Abuse, O'Brien, Robert Cohen, Sydney, M.D. Facts on File, INC New York (1984) page 100, 120, 123, 124: Narcotics:

constricted pupils

reduced heart rate

Analgesia euphoria

depressed appetite going "on the nod"

Drug Abuse and Dependence, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), page 14: Narcotics:

constricted pupils

"nodding off"

dreamy state

pain suppression

euphoria

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989) page 293 - 294:

Miosis (constricted pupils)

Bradycardia

Hypothermia

decreased temperature)

(decreased heart beat) euphoria/dysphoria

drowsiness lethargy

confusion

flaccid muscle tone

depressed respiration

Analgesia

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D., Ph.D., D Plenum Medical Book Company, New York (1988), page 132

Miosis (constricted pupils)

low blood pressure

itching

flushing sweating

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 152.

Maladaptive behavioral changes, e.g., initial euphoria followed by apathy, dysphoria, psychomotor retardation, impaired judgment, impaired social or occupational functioning.

pupillary constriction

drowsiness

slurred speech

impairment in attention or memory

### INHALANTS: (Toluene)

DRE Symptomatology:

Nystagmus increased blood pressure

odor on mouth slurred speech

increased pulse rate residue around nose nausea disorientation

confusion

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A.; Goodman, I.; MacMillan Publishing Co. 1985, Inhalants, page 567

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed., Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989. p. 185

decreased inhibitions

drowsiness

sneezing runny nose

floating sensation

light sensitivity

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984)

lowered inhibitions

... incoordination confusion

nausea

restlessness

disorientation

impaired judgment

Drug Abuse and Dependence, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990)

<u>Drugs of Abuse</u>, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), pages 265, 272, 297: Toluene:

Nystagmus

mental dulling

tremors cerebellar rambling speech

Ataxia irritability

light headedness

tremors

CNS depression that mimics

Ataxia

Narcotic Analgesics

blank stare euphoric mood

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D., Ph.D., Ph.D., Phenum Medical Book Company, New York (1988)

brief euphoria giddy intoxication, similar to alcohol CNS depression (volatile solvents/toluene) dizziness Vertigo

<u>Diagnostic and Statistical Manual of Mental Disorders</u> (Third Ed, Revised), American Psychiatric Association (1987), p. 149.

Maladaptive behavioral changes, e.g., belligerence, assaultiveness, apathy, impaired judgment, impaired social or occupational functioning.

Nystagmus

dizziness

incoordination

slurred speech

unsteady gait

lethargy

depressed reflexes tremor generalized muscle psychomotor retardation blurred vision or diplopia

stupor or coma

weakness

euphoria

### **CANNABIS**

DRE Symptomatology:

Dies Symptomatology

dilated pupils

odor of Marijuana

body tremors

relaxed inhibitions

paranoia

impaired perception of

time and distance

marked reddening of conjunctivae

debris in mouth

eyelid tremors

increased appetite

disorientation

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A.; Goodman, I.; MacMillan Publishing Co. 1985, Cannabis, pages 559-561

euphoria temporal disintegration information processing impairment dry mouth

short term memory impairment balance and stance impairment increased hunger additive to alcohol

### Lower doses

affects perception, impairing well beyond when subject subjectively feels effects; alters all information processing; relatively simple motor skills unaffected

### High doses:

anxiety increased heart rate

marked reddening of Conjunctiva

hallucinations

increased systolic blood pressure

simple motor skills affected

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988; Cannabis, page 678-681

reddening of Conjunctiva motor coordination impairment relaxation

temporal distortion

(time slows)

impairment of motor tasks and reaction times requires higher dosages

loss of short term memory systematic thinking impaired

dry mouth

alteration in mood

euphoria sleepiness

decrease in balance, steadiness and

muscle strength

elective attention stimulated appetite

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1985: page 178, Marijuana

reddening of Conjunctiva increased blood pressure dry mouth altered sensory perception <u>Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment,</u> (3rd Ed., Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989, page 145: Cannabis:

red Conjunctiva

relaxation

increased heart rate time distortion

impairment in ability to do

multi-step tasks

decrease level of motor coordination

euphoria dry mouth

possibly Nystagmus short term memory

tremors

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), pages 100, 120: Marijuana:

red eye

increased heart beat

dryness of mouth and throat

increased pulse rate

increased appetite

time and space distortions

increased heart rate lack of coordination

<u>Drug Abuse and Dependence</u>, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990) page 19: Marijuana:

increased appetite

bloodshot eyes

agitation

hallucinations

faster heartbeat

confusion

incoordination

<u>Drugs of Abuse</u>, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), page 296: Cannabis:

red Conjunctiva

pleasant relaxation

slowed time

apathy

problems with motor coordination

increased appetite

intensification of sensations

passivity

Tachycardia (increased heart rate)

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988), page 147: Cannabis:

red Conjunctiva

changes in time sense

memory

coordination

balance and stance

increased hunger

short-term memory loss

dry mouth:

Tachycardia (rapid heart beat)

elevated systolic pressure affected

<u>Diagnostic and Statistical Manual of Mental Disorders</u> (Third Ed, Revised), American Psychiatric Association (1987), p. 140.

Maladaptive behavioral changes, e.g., euphoria anxiety, suspiciousness, or paranoid ideation, sensation of slowed time, impaired judgment, social withdrawal.

red Conjunctiva Tachycardia (rapid heart) increased appetite dry mouth

# SESSION XXIII

RESUME PREPARATION AND MAINTENANCE

# SESSION XXIII RESUME PREPARATION AND MAINTENANCE

Upon successfully completing this session, the participants will be able to:

- o Describe and discuss the purpose of the resume.
- o Identify the elements of a drug recognition expert's resume.
- o Prepare a basic resume summarizing their relevant training, education, experience and accomplishments to date.
- o Update and extend the resume, as their relevant achievements continue to expand.

### A. Purpose of the Resume

The principal purpose of the resume is to help establish your qualifications for testifying in court as a drug recognition expert. The resume records the education and training you have received, and the experience you have accumulated, that qualify you to render an opinion concerning drug impairment.



As a general rule, witnesses can testify only to personal knowledge, and cannot offer opinions as testimony. An important exception to this rule is granted to expert witnesses.

Basically, an expert witness is someone who the court decides is a expert. But "experts" usually are persons skilled in some art, trade, science or profession, who have a knowledge of matters not within the knowledge of people of average education, learning and experience. The prosecution or defense will call a witness who, they assert, is a "expert" in some matter. The court will carefully assess the credentials of that witness, i.e., the education, training and experience he or she has had in the matter in question. And the court -- and the court alone -- will decide whether the witness is a expert. If the court rules that the witness is a expert, then the witness may assist the finder of fact (jury or judge) in arriving at a verdict by expressing an opinion on a state of facts shown by the evidence, and based upon his or her special knowledge.

After you have completed all of the necessary training, the prosecution will begin to call <u>you</u> as an expert witness in drug evaluation and classification cases. The court will wish to consider relevant evidence of your alleged expertise. The resume can help to ensure that the court rules in your favor.

# B. Preparation for Court Qualification

Being qualified as an expert may be as simple as stating your occupation. Or, it could require several hours of exhausting questioning by the prosecutor and the defense attorney. The prosecutor will seek to show that, insofar as drug evaluation is concerned, your knowledge is greater than that of the average person. The stronger your credentials, the better the chance that the court will consider you an "expert". And, the stronger your credentials, the more impressed the jury will be with your expertise, and the more weight they will give to your testimony.

The credentials that you have to offer to establish your expertise consist mainly of:

- o The formal education and training you have received.
- o The directly relevant experience you have acquired.
- o The "outside" readings and study you have done.

XXIII-1

You need to have accurate, up to date and documented evidence of these credentials, to support the assertion that you are a expert.

### C. Resume Content

- 1. Relevant Formal Education.
  - a. High School Education
    List the high school(s) you attended and the dates of your attendance.
    Highlight classes that provided knowledge in the area of drugs.
  - b. College Education
    List the schools and dates. Highlight courses relevant to drugs, and relevant to the drug evaluation and classification examination procedures. List major field(s) of study, degree(s) earned, etc.
  - Specialized College or University level courses.
     List dates, instructor, subject(s) covered, credits earned, etc.
     Highlight the relevance of these courses to drugs.

# 2. Formal Training.

- a. Police Academy (recruit level training).
   List dates of attendance, major topics covered. Highlight drug relevant training.
- b. Specialized Police Training/In-Service Training.
   List dates, topics, instructors. Highlight drug relevant training.
- c. Other specialized training (e.g., military; special seminars; lectures). List dates, topics, instructors. Highlight drug relevant training.
- 3. Relevant Experience.
  - a. Job Experience. (law enforcement)
    List specific assignments, including dates, rank held, etc. Include special assignments. Highlight duties associated with drug enforcement.
  - Other Job Related Experience.
     List employers, dates, specific duties, etc. Highlight work relevant to drugs.

- c. Drug Enforcement/Evaluation Experience.

  Maintain up to date totals of vehicle stops; DWI investigations; DWI arrests; drug evaluations; filings on alcohol and drug related charges; convictions on each charge.
- d. Prior experience in testifying in drug related cases. Maintain up to date totals of the numbers of appearances in various level courts (e.g., municipal, superior, etc.); the number of times qualified as an expert witness in drug cases; the number of times qualified as an expert witness in other cases.

### 4. Outside Readings and Study.

a. Maintain listings of the drug related texts read; departmental training bulletins read; journals read; research papers read; films and video tapes viewed; etc.

Document drug related training and research that you conducted or in which you participated. List all relevant publications, training bulletins, etc. that you authored or co-authored.

# D. Sample Resumes

The remainder of this section of the Manual presents two sample DRE's resumes. They are based on the training and experience of actual drug recognition experts, although specific identifiers have been changed to preserve their anonymity.

# SAMPLE RESUME NUMBER ONE

# SHELTON POLICE DEPARTMENT

Traffic Division

The Resume of:

SERGEANT DAVID CARROLL REGAN Certified Drug Recognition Technician

Latest update: 3/17/XX

### Sgt. David C. Regan

# Introduction

Sergeant David Carroll Regan is a supervisor in the Traffic Division, Shelton Police Department. He currently commands the special Impaired Driving Enforcement Activities Squad (IDEAS), a unit he was instrumental in forming. Sgt. Regan is a 15 year veteran of law enforcement. Prior to joining the Shelton Police Department ten years ago, he served for five years as a deputy with the Fairfield County Sheriff's Department.

Sergeant Regan has been assigned to the Traffic Division since his promotion to sergeant on 11/18/YY. His duties have included coordination of speed and DWI enforcement activities, the Joint Shelton-Derby Task Force for Sobriety Checkpoints, the Officer Friendly Program, the Motorcycle Safety Education Project, and general supervision of Traffic Division officers. He also serves as the Department's principal instructor for radar speed measurement, Standardized Field Sobriety Testing and Drug Recognition Expert training.

Sergeant Regan holds a Bachelor's Degree in the Administration of Justice from Fairfield University, and currently is a candidate for a Master's Degree in Police Science and Administration at the University of Stratford. He also holds an Instructor Certificate from the State Law Enforcement Training Board.

Sergeant Regan has served on two committees of the Governor's Task Force to Prevent Drunk Driving: The Standardized Field Sobriety Tests Committee and The Paperwork Reduction Committee. The one page Standard Notetaking Guide for Field Sobriety Testing that is employed by all departments statewide was designed by him.

# Law Enforcement Experience

11/18/YY to Present Sergeant, Traffic Division

Shelton Police Department Supervisor, IDEAS Unit

Drug Recognition Expert Program Coordinator

7/8/ZZ to 11/17/YY Patrol Officer First Class

Training and Operations Shelton Police Department

Unit Supervisor, Traffic Law Enforcement Training Branch

9/11/XX to 7/7/ZZ Patrol Officer

Third Precinct, Motorcycle Shelton Police Department

# Sgt. David C. Regan

# Law Enforcement Experience (continued)

11/5/MM to 9/10/XX

Patrol Officer

First Precinct

Shelton Police Department

10/10/NN to 11/4/MM

Deputy

Traffic Patrol

Fairfield County Sheriff's Department

# Special Police Training

| 10/XX  | National Highway Traffic Safety Administration  DRE Instructor Training  (Certified as a DRE Instructor on 11/12/XX)                            |
|--------|---|
| 8/XX   | Drug Enforcement Administration  Drug Interdiction Seminar  |
| 11/YY  | National Highway Traffic Safety Administration Drug Evaluation and Classification Training: DRE School (Certified as a DRE on 1/28/XX)          |
| 10/YY  | National Highway Traffic Safety Administration  Drug Evaluation and Classification Training: PRE School   |
| 3/YY   | Southeastern University Institute of Police Technology<br>Special Conference: Managing DWI Squads   |
| 4/ZZ   | International Association of Chiefs of Police<br>Instructor Training in Horizontal Gaze Nystagmus and<br>Divided Attention Field Sobriety Tests |
| 10/MIM | University of Stanford, Northern Police Institute<br>Standardized Field Sobriety Testing  |
| 6/NN   | Acme Scientific Instruments, Inc. (Certified to perform inspection and repair of the Intoxotector J2Z breath testing instrument on 6/22/NN)     |

### Sgt. David C. Regan

### Court Qualification Record

8/VV Qualified as Drug Recognition Expert in a case involving Phencyclidine impairment. (Judge Sally Grey, 8th District)

11/WW Qualified as Drug Recognition Expert in a case involving a

combination of CNS Stimulant and Narcotic Analgesic. (Judge Lewis

Buchanan, Superior Court)

3/WW Qualified as Drug Recognition Expert in a case involving Cannabis

impairment. (Judge Sally Grey, 8th District)

9/UU Qualified as Drug Recognition Expert in a case involving Narcotic

Analgesic impairment. (Judge Jerome Byrnes, 8th District)

# Specialized Readings

| <u>Title</u> | Author |
|--------------|--------|
|              |        |

Drug and Alcohol Abuse Marc A. Schuckit, M.D.

A Primer of Drug Action Jerome Jaffee, Robert Petersen and Ray

Hodgson

The Practitioner's Guide to Ellen L. Bassuk, M.D. and

Psychoactive Drugs Stephen C. Schoonover, M.D.

Drug Abuse: A Manual for Law Smith, Kline & French (pub.)

Enforcement Officers

Licit and Illicit Drugs Edward M. Brecher

Chocolate to Morphine Andrew Weil, M.D. and Winifred Rosen

Cocaine Addiction U.S. Department of Health and Human

Services

Marijuana Alert Peggy Mann

### SAMPLE RESUME NUMBER TWO

TRUMBULL POLICE DEPARTMENT

The Resume of:

OFFICER ANN MARIE REED Certified Drug Recognition Technician

Latest Update: 4/25/YY

### Officer Ann M. Reed

Introduction

Officer Ann Marie Reed is an eight year veteran with the Trumbull Police Department. She is currently assigned to the Special Operations Branch of the Administrative Division, where she serves as a Narcotics Enforcement Officer. Previously, she has served in the same Branch as a Vice Enforcement Officer, and as a patrol officer in the Department's first and second precincts.

Officer Reed is a graduate of Monroe College, with the Bachelor's Degree in Police Science and Administration. She is currently a candidate for the JD Degree at the Law School of the University of Bridgeport.

Law Enforcement Experience

5/12/VV to Present Narcotics Enforcement Officer and Drug Recognition Expert

Special Operations Branch Trumbull Police Department

3/26/WW to 5/11/VV Vice Enforcement Officer Special Operations Branch

Trumbull Police Department

9/23/XX to 3/25/WW Patrol Officer

First Precinct

Trumbull Police Department

8/28/NN to 9/22/XX Patrol Officer

Second Precinct

Trumbull Police Department

5/15/NN to 8/25/NN Trainee

Fairfield County Regional Police Academy

(Graduated 8/25/NN)

Special Police Training

2/YY University of Norwalk, Police Science Institute

Seminar: Packaging and Transport of Illicit Drugs

10/VV University of Norwalk, Police Science Institute

Seminar: Suppression of Drug-related Crime

3/VV National Highway Traffic Safety Administration

Drug Evaluation and Classification Training: DRE School

(Certified as a DRE on 5/22/VV)

### Officer Ann M. Reed

Special Police Training (Continued)

2/VV Fairfield County Regional Police Academy

Drug Evaluation and Classification Training: PRE-School

10/WW Fairfield County Regional Police Academy

Standardized Field Sobriety Testing

Publications Authored

Reed, Ann M. and Cockroft, Robert S., "Narcotics Enforcement Tactics for the Medium-sized Department"; The Police Chief. January 17, 19XX.

Reed, Ann M., <u>Procedures for Requesting Drug Recognition Expert Services</u>; Training Bulletin for the Trumbull Police Department. 6/VV.

Reed, Ann M., <u>Recognizing the Heroin Addict</u>; Training Bulletin for the Trumbull Police Department. 1/VV.

Court Qualification Record

11/WW Qualified as an expert witness for identification of Heroin

impairment. (Judge Michael Adkins, 7th District)

3/WW Qualified as a Drug Recognition Expert in a case involving a

combination of CNS Stimulant and Narcotic Analgesic. (Judge

Roberta Mayer, 7th District)

9/ZZ Qualified as an expert witness for identification of "track" marks.

(Judge Charles Peltier, 7th District)

Specialized Readings

<u>Title</u> <u>Author</u>

Signs and Symptoms Handbook Barbara McVan, M.D.

Drugs From A to Z Richard R. Lingeman

Guide to Psychoactive Drugs Richard Seymour and David E. Smith, M.D.

Addictions: Issues and Answers Robert M. Julien, M.D.

Report on Synthetic China

White: Fentanyl Det. James Miller, LAPD

SESSION XXIV

DRUG COMBINATIONS

# SESSION XXIV DRUG COMBINATIONS

Upon successfully completing this session, the participants will be able to:

- o Explain the prevalence of polydrug use among drug impaired suspects and identify common combinations of drugs abused by those suspects.
- Explain the possible effects that combinations of drugs can produce on the major indicators of drug impairment, and define the terms "Null", "Overlapping", "Additive" and "Antagonistic" as they relate to polydrug effects.
  - o Identify the specific effects that are most likely to be observed in persons under the influence of particular drug combinations.

# A. Examples of Polydrug Use

Studies have shown that polydrug use is on the rise throughout the country. In the Los Angeles Field Validation Study (1985), nearly three-quarters (72%) of the suspects who were evaluated were found to have two or more drugs in their blood samples. During Certification Training in New York City in early 1989, two-thirds (67%) of the suspects were polydrug users. The most familiar drug of all, alcohol, apparently is an especially popular "mixer" with other drugs. Alcohol routinely shows up in combination with virtually everything else, and often DREs encounter suspects who have consumed alcohol along with two or more other drugs. Cannabis is another popular "mixer", and frequently shows up in combination with Cocaine, PCP and various other drugs. The "speedball", a combination of Cocaine and Heroin, remains popular, despite the well-publicized hazards of this particular mixture, this was the combination responsible for the death of the actor John Belushi.

DREs should not be surprised to encounter virtually any possible combination of drugs. DREs may find more polydrug users than single drug users. This means that if the DRE is to do a good job at interpreting the results of evaluations, they must understand the mechanisms of drug interaction.

# B. The Mechanisms of Drug Interaction: Four Basic Concepts

When a person ingests two or more different drugs into their body, each drug may work independently. What the body will exhibit, however, is a combination of those effects.

Four types of combined effects can, and generally will, occur when two drug categories are used together.

### 1. The Null Effect

The simplest way to explain the Null Effect is to say that it is the same thing as "zero plus zero equals zero". Some specific examples may help clarify this.

One of the first things a DRE does when examining a suspect is to check for HGN. We know that many drugs do not affect nystagmus. For instance, if we examined a suspect that was under the influence of Cocaine and nothing else, we would not expect to observe nystagmus. Likewise, if we examined someone who was under the influence of Marijuana and nothing else, no nystagmus would be present. What do you expect we would see when we check for nystagmus in the eyes of someone who has used Cocaine and Cannabis in combination? Since neither drug independently has any affect on nystagmus, the combination also would not affect nystagmus: nothing plus nothing equals nothing.

Another example of the Null Effect would be found when we check the pupil size of a suspect who was under the influence of PCP and Xanax. PCP does not affect pupil size; neither does Xanax, a CNS Depressant. The combination of these drugs will not affect the size of the pupils.

The Null Effect, then, means simply this: If neither drug affects some particular indicator of impairment, their combination also will not affect that indicator.

# 2. The Overlapping Effect

The Overlapping Effect comes into play when one drug does affect some indicator of impairment and the other drug has no effect whatsoever on that indicator. This is a case of "something plus nothing equals something".

Consider once again the example of a combination of Cocaine and Cannabis. We've already seen that this combination produces a Null Effect as far as nystagmus is concerned. But what about when we examine the suspect's eyes for a Lack of Convergence? Cannabis does produce a Lack of Convergence, Cocaine doesn't. Therefore, the suspect who is under the combined influence of Cannabis and Cocaine will exhibit a Lack of Convergence due to the independent effect of the Cannabis. This is an instance where the effects of the two drugs "overlap".

Another example of an Overlapping Effect would be the pupil size of a person who has taken PCP in combination with Heroin. PCP doesn't have any effect on pupil size, Heroin causes constricted pupils. Therefore, the combination would also cause the pupils to constrict.

The Overlapping Effect boils down to: Action plus no action equals action.

# 3. The Additive Effect

The Additive Effect occurs when two drug categories both affect some indicator of impairment in the same way. In combination, these effects reinforce each other.

Once again, think of the combination of Cocaine and Cannabis. What will we find when we check this suspect's pulse rate? Cannabis produces Tachycardia, so does Cocaine. When the two drugs are taken together, we can expect to observe Tachycardia because the drugs reinforce each other for that particular indicator of impairment. That is, the effect is additive.

The simplest way to express the Additive Effect is to say "something plus the same something produces that same something". One thing we can't say for certain is how much the two drugs will reinforce each other. Sometimes the reinforced effect is as simple as "one plus one equals two". But at other times, the combined effect is much greater than the individual contributions of the two drugs, e.g., on the order of "one plus one equals five". We use the term Additive Effect to cover all situations where two drugs impact on some indicator in the same way.

You have already noticed that we have used one particular drug combination, Cannabis and Cocaine, to furnish examples of all three kinds of effects covered so far. This drives home the important point that drug interactions are often complex, and involve a number of different mechanisms operating at the same time.

# 4. The Antagonistic Effect

The Antagonistic Effect occurs when two drug categories affect some indicator in exactly the opposite ways. This is a case of "action plus opposing action". For example, suppose we check the blood pressure of someone who is under the combined influence of Heroin and Cocaine; what are we likely to find?

The fact is, we're likely to find just about anything at all. The Heroin, independently, tends to produce hypotension, the Cocaine, independently, usually produces hypertension. The two drugs may offset each other, as far as blood pressure is concerned, and the suspect's blood pressure may wind up normal. On the other hand, if the Cocaine's effects are starting to wear off and the Heroin is still active in the suspect's body, we might find the blood pressure down. Conversely, if the Cocaine is active but the Heroin's effects have not yet reached their peak, we might find the blood pressure up. When we deal with an Antagonistic Effect, we simply can't predict what the outcome will be.

### C. The Symptomatology of Drugs

On the next page, you will find the Cumulative Drug Symptomatology Matrix. This lists all of the expected effects of each drug category on the major indicators of impairment, and summarizes the general indicators, time parameters and methods of ingestion for each category. This matrix will be useful in identifying how specific combinations of drugs will interact to produce a variety of Null, Overlapping, Additive and Antagonistic Effects.

# INDICATORS CONSISTENT WITH DRUG CATEGORIES

| CANNABIS               | NONE    | NONE                    | PRESENT                | DILATED (6) | NORMAL                    | UP         | A.                | NORMAL             |
|------------------------|---------|-------------------------|------------------------|-------------|---------------------------|------------|-------------------|--------------------|
| CAN                    | Ŋ       | N                       | PRE                    | · DILA      | NO                        |            |                   | ÖN                 |
| INHALANTS              | PRESENT | PRESENT<br>(HIGH DOSE)* | PRESENT                | NORMAL (4)  | MOTS                      | UP         | UP/DOWN (5)       | UP/DOWN/<br>NORMAL |
| NARCOTIC<br>ANALGESICS | NONE    | NONE                    | NONE                   | CONSTRICTED | LITTLE OR<br>NONE VISTBLE | DOWN       | DOWN              | NMOQ               |
| PCP                    | PRESENT | PRESENT                 | PRESENT                | NORMAL      | NORMAĽ                    | UP         | UP                | d.I.I              |
| HALLUCINOGENS          | NONE    | NONE                    | NONE                   | DILATED     | NORMAL (3)                | UP         | đΩ                | em                 |
| CNS<br>STIMULANTS      | NONE    | NONE                    | NONE:                  | DILATED     | BLOW                      | UP         | UP                | £ L                |
| DEPRESSANTS            | PRESENT | PRESENT<br>(HIGH DOSE)* | PRESENT                | NORMAL (1)  | MOTS                      | DOWN (2)   | DOWN              | MORNAI             |
|                        | HGN     | VGN                     | LACK OF<br>CONVERGENCE | PUPIL SIZE  | REACTION TO               | PULSE RATE | BLOOD<br>PRESSURE | BODY               |

\*high dose for that particular individual

FOOTNOTE:

These indicators are those most consistent with the category, keep in mind that there may be variations due to individual reaction, dose taken and drug interactions.

SOMA, Quaaludes usually dilate pupils. નં એ એ

Quaaludes and ETOH may elevate.

Certain psychedelic amphetamines cause slowing.

Normal but may be dilated.

Down with anesthetic gases, up with volatile solvents and aerosols.

Pupil size possibly normal.

XXIV-4

|           |   |  | <del></del>                                    |   |   |
|-----------|---|--|--|---|---|
| CANNABIS  | Marked reddening of conjunctiva of conjunctiva Odor of marijuana Marijuana debris in mouth Body tremors Eyelid tremors Relaxed inhibitions Increased appetite Increased appetite Increased appetite fine & distance Disorientation Possible paranoia  | 2.3 hours exhibits effects (Impairment may last up to 24                         | hours, without<br>awareness of<br>effects.)    | Smoked<br>Oral  | Fatigue<br>paranoia   |
| INHALANTS | Residue of substance around nose & nouth Odor of substance Possible nausea Shured speech Discrimitation Confusion Bloodshot, watery eyes Lack of muscle control Flushed face Non-communicative Intense headaches  **NOTE: Anssthetic gases cause below normal blood pressure: volatile solvents and serosols cause above normal blood pressure. | 6-8 hours for most volatile solvents Anesthetic gases and apericals - very short | duration.                                      | Insuffated<br>(Historically, have<br>been taken orally.)  | Coma  |
| NARCOTIC  | Droopy evelids ("ptosis") "On the nod" Drowsiness Low, raspy, slow speech Dry mouth Facial itching Suphoria Fresh puncture marks Nausea Track marks Nausea Track marks rese exhibit relatively little psychomotor impairment.   | Heroin: 4-6 hours  Methadone:  | Others: Vary                                   | Injected<br>Oral<br>Smoked<br>Insufflated                 | Slow, shallow<br>breathing<br>Clammy skin<br>Coms<br>Consa                            |
| đượ       | Perspiring Warn to the touch Blank store Very early angle of HGN onset Difficulty in speech Incomplete verbal responses Repetitive speech Increased pain threshold Cyclic behavior Confused agitated Hallucinations Possibly violent & comfastive Chemical odor "Moon walking"  | Onset:<br>1-5 minutes<br>Peak Effects:   | 15-30 minutes Exhibits effects up to 4-6 hours | Smoked Oral Insufflation Injected Eye drops               | Long intense  |
|           | Dazed appearance Body tremors Synesthesia Hallucinquious Farancia Uncoordinated Nausea Discriented Diffoulty in speech Perspiring Poor perception of time & distance Memory loss Discrientation Flashbacks Nicht LSD, piloenettion may be observed (goose bumps, hair standing on end)  | Duration varies widely from one hallucingen to another.                          |  | Oral<br>Insufflation<br>Smoked<br>Injected<br>Transdermal | Long intense<br>"trip"  |
| CNS       | STIMULANTS Restlessness Body tremors Excited Excited Excited Excited Excited Excited Calkative Grinding peeth Grinding peeth Grinding peeth Grinding peeth Increased to nasal area Runny nose Loss of appetite Increased alertness Dry mouth Irritability   | Cocaine:<br>5-90 minutes<br>Amphetamines:  | 4-8 hours<br>Methamphetamines<br>12 hours      | Insuffiction<br>(snorting)<br>Snoked<br>Injected<br>Oral  | Agitation Increased body temperature Hallucinations Convulsions                       |
| CNS       | DEPRESSANTS Uncoordinated Disoriented Sluggish Thick, slurred Suggish Drunk-like behavior Gait ataxia Drowsiness Droopy eves Fumbling *NOTE: With Methaqualome, pulse will be elevated and body tremost will be evident. Alcohol and Quaaludes elevate pulse. Soma and Quaaludes elevate pulse. Soma and Quaaludes dilate pupils.               | Barbiturates:<br>1-16 hours<br>Twennillaers:                                     | 4-8 hours  Methaqualone:                       | Oral Injected (occasionally)                              | Shallow breathing<br>Coll, clammy skin<br>Pupils dilated<br>Rapid, weak pulse<br>Ooms |
| MAJOR     | INDICATORS GENERAL INDICATORS   | DURATION OF<br>BFFECTS   |  | USUAL<br>METHODS OF<br>ADMINISTRATI<br>ON                 | OVERDOSE<br>SIGNS   |

# D. Specific Examples of Drug Combinations: An Exercise for the Student

On the final five pages of this section of the Manual, you will find examples of specific drug combinations. The expected results for the first two of these combinations (Cannabis and Stimulants, and PCP and Heroin) have been worked out for you. Study those examples, then complete the work sheets for the three remaining combinations.

# CANNABIS AND CNS STIMULANT IN COMBINATION

| IMPAIRMENT<br>INDICATOR         | EFFECT DUE<br>TO CANNABIS | EFFECT DUE TO<br>CNS STIMULANT | TYPE OF<br>COMBINED<br>EFFECT | WHAT WILL<br>WE SEE |
|---------------------------------|---------------------------|--------------------------------|-------------------------------|---------------------|
| HORIZONTAL<br>GAZE<br>NYSTAGMUS | NONE                      | NONE                           | NULL                          | NONE                |
| VERTICAL<br>GAZE<br>NYSTAGMUS   | NONE                      | NONE                           | NULL                          | NONE                |
| LACK OF<br>CONV.                | PRESENT                   | NONE                           | OVERLAPPING                   | PRESENT             |
| PUPIL<br>SIZE                   | DILATED<br>OR NORMAL      | DILATED                        | OVERLAPPING<br>OR ADDITIVE    | DILATED             |
| REACT<br>LIGHT                  | NORMAL                    | SLOW                           | OVERLAPPING                   | slow                |
| PULSE<br>RATE                   | UP                        | UP .                           | ADDITIVE                      | UP                  |
| BLOOD<br>PRESSURE               | UP                        | UP                             | ADDITIVE                      | UP                  |
| BODY<br>TEMP                    | NORMAL                    | : UP                           | OVERLAPPING                   | UP                  |

# PHENCYCLIDINE AND HEROIN IN COMBINATION

| IMPAIRMENT<br>INDICATOR         | EFFECT DUE TO PHENCYCLIDINE | EFFECT DUE<br>TO HEROIN   | TYPE OF<br>COMBINED<br>EFFECT | WHAT WILL<br>WE SEE       |
|---------------------------------|-----------------------------|---------------------------|-------------------------------|---------------------------|
| HORIZONTAL<br>GAZE<br>NYSTAGMUS | PRESENT                     | NONE                      | OVERLAPPING                   | PRESENT                   |
| VERTICAL<br>GAZE<br>NYSTAGMUS   | PRESENT                     | NONE                      | OVERLAPPING                   | PRESENT                   |
| LACK OF<br>CONV.                | PRESENT                     | NONE                      | OVERLAPPING                   | PRESENT                   |
| PUPIL<br>SIZE                   | NORMAL                      | CONSTRICTED               | OVERLAPPING                   | CONSTRICTED               |
| REACT<br>LIGHT                  | NORMAL                      | LITTLE OR<br>NONE VISIBLE | OVERLAPPING                   | LITTLE OR<br>NONE VISIBLE |
| PULSE<br>RATE                   | UP                          | DOWN                      | ANTAGONISTIC                  | DOWN/<br>NORMAL/UP        |
| BLOOD<br>PRESSURE               | UP                          | DOWN                      | ANTAGONISTIC                  | DOWN/<br>NORMAL/UP        |
| BODY<br>TEMP                    | UP                          | DOWN                      | ANTAGONISTIC                  | DOWN/<br>NORMAL/UP        |

# WORKSHEET#1

# PCP AND HALLUCINOGENS

| IMPAIRMENT<br>INDICATOR         | EFFECT DUE<br>TO PCP | EFFECT DUE TO<br>HALLUCINOGEN | TYPE OF<br>COMBINED<br>EFFECT* | WHAT WILL<br>WE SEE |
|---------------------------------|----------------------|-------------------------------|--------------------------------|---------------------|
| HORIZONTAL<br>GAZE<br>NYSTAGMUS |                      |                               | ,                              |                     |
| VERTICAL GAZE<br>NYSTAGMUS      |                      |                               |                                |                     |
| LACK OF<br>CONV.                |                      | •                             |                                |                     |
| PUPIL<br>SIZE                   |                      |                               |                                |                     |
| REACT<br>LIGHT                  | <u>.</u>             |                               | •.                             |                     |
| PULSE<br>RATE                   |                      |                               |                                | ,                   |
| BLOOD<br>PRESSURE               |                      | <b>*</b>                      |                                |                     |
| BODY<br>TEMP                    |                      |                               |                                |                     |

<sup>\*</sup>Null; Overlapping; Additive; or, Antagonistic

## WORKSHEET #2

# CANNABIS AND DEPRESSANT

| IMPAIRMENT<br>INDICATOR         | EFFECT DUE<br>TO CANNABIS | EFFECT DUE<br>TO<br>DEPRESSANT | TYPE OF<br>COMBINED<br>EFFECT* | WHAT WILL<br>WE SEE |
|---------------------------------|---------------------------|--------------------------------|--------------------------------|---------------------|
| HORIZONTAL<br>GAZE<br>NYSTAGMUS |                           |                                |                                |                     |
| VERTICAL GAZE<br>NYSTAGMUS      |                           |                                |                                |                     |
| LACK OF<br>CONV.                |                           |                                |                                |                     |
| PUPIL<br>SIZE                   |                           |                                |                                |                     |
| REACT<br>LIGHT                  |                           | ·                              |                                |                     |
| PULSE<br>RATE                   |                           |                                |                                |                     |
| BLOOD<br>PRESSURE               |                           |                                |                                |                     |
| BODY<br>TEMP                    |                           | ·                              |                                |                     |

<sup>\*</sup>Null; Overlapping; Additive; or, Antagonistic

## WORKSHEET#3

# CNS STIMULANT AND DEPRESSANT

| IMPAIRMENT<br>INDICATOR         | EFFECT DUE<br>TO CNS<br>STIMULANT | EFFECT DUE<br>TO<br>DEPRESSANT | TYPE OF<br>COMBINED<br>EFFECT* | WHAT WILL<br>WE SEE |
|---------------------------------|-----------------------------------|--------------------------------|--------------------------------|---------------------|
| HORIZONTAL<br>GAZE<br>NYSTAGMUS |                                   |                                |                                |                     |
| VERTICAL GAZE<br>NYSTAGMUS      |                                   |                                |                                |                     |
| LACK OF<br>CONV                 |                                   |                                |                                |                     |
| PUPIL<br>SIZE                   | ·                                 |                                |                                |                     |
| REACT<br>LIGHT                  |                                   |                                |                                |                     |
| PULSE<br>RATE                   |                                   |                                |                                | -                   |
| BLOOD<br>PRESSURE               |                                   |                                |                                |                     |
| BODY<br>TEMP                    |                                   |                                | -                              |                     |

<sup>\*</sup>Null; Overlapping; Additive; or, Antagonistic

# SESSION XXV

PRACTICE: TEST INTERPRETATION

#### SESSION XXV PRACTICE: TEST INTERPRETATION

Upon successfully completing this session, the participants will be able to:

- Analyze the results of a complete Drug Evaluation and Classification Examinations and identify the category or categories of drugs affecting the individual examined.
- o Articulate the basis for the drug category identification.

This session is similar to Sessions XV and XVIII. You will once again review some drug evaluation and classification report "exemplars", consider all of the "evidence" they provide, and decide what categories of drugs -- if any -- are present. Now that we have covered all seven categories, you can expect to find any or all of the categories in these exemplars. And, some exemplars might involve combinations of drug categories. Pay close attention to all of the information in these exemplars when making your determinations.

Drug Influence Evaluation
RE No Rolling Log No. Vac

| PICHARDSON                      | SANDY                     | 38x                   |                          | Xeeming 200                             | 1297                                  | <u></u>        |   | XX \ -                          |
|---------------------------------|---------------------------|-----------------------|--------------------------|---|---------------------------------------|----------------|---|---------------------------------|
| Recorder/Witness                |                           | Crash:                | □ None<br>□ Injur        |   | Property                              |                |   |                                 |
|                                 |                           | o ratai               | e mjur                   | y :-                                    | • •                                   |                |   |                                 |
| Arrestee's Name (Last, First    | , MI)                     | DOB                   | Sex                      | Race                                    | Arresting Officer                     |                |   | •~                              |
| FIEF GARY                       |                           | 9-03-61               | 100                      | w                                       | GOIGUE                                |                |   | 157                             |
| Date Examined/Fime/Locati       | on                        |                       |                          | Breath Results:                         | □ Refused                             | Chem           | ical Test<br>□ Refused                          | XUrine □ Blood                  |
| 3-21-01 23                      | 530 VALLEY                | TRAFFIC DIL           | 115. Id                  | Instrument #<br>Oいみなごと                  | $\circ$ . $\circ$                     |                | u Keinsed                                       |                                 |
| Miranda Warning Given:          |                           | t have you eaten toda |                          |   | e you been drinking                   | ? He           | ow much ?                                       | Time of last drink?             |
| By:<br>RICHARDSON               | Som                       | IE COOLIES"           | "F@U #4                  | S. Neo' T                               | ©A .                                  |                | 4/64  | · N/A                           |
| Time now? When did you          | last sleep? How long?     | Are you sick or       |                          |   | A No                                  |                | you diabetic or                                 | epilaptic?                      |
| T DON'T                         | REMEMBER                  |                       |                          | •                                       | •                                     | -              | Yes X No  | ` .                             |
| Do you take insulin?            | □ Yes No                  | Do you have an        | y physical c             | lefects? O Yes                          | ØNo .                                 |                | you under the c                                 |                                 |
| *                               |                           |                       |                          |   | *                                     | a doc          | stor or dentist?                                | □ Yes KNo                       |
| Are you taking any medicati     | on or drugs? D Yes N      | o Attitude C⇔⊙r       | SEDATIU.                 | ೭, ಡಿಂ್ ಕ∟                              | المالية المالية                       | S-25 Coor      | dination  |                                 |
|                                 |                           | DISTUTER              |                          |   |                                       | DIS<br>Face    | مداعداتون                                       | 2 UDSTEADY                      |
|                                 |                           | Breath<br>STALE       | ರಾಣದ                     |   | ·                                     | 1              | ZMAL  |                                 |
| Speech                          |                           | Eyes: O Red           | dened Conj               |   | Blindness:                            |                |   | Tracking:<br>of Equal © Unequal |
| SLOW                            |                           | © Normal AB           | réedshot (               | watery                                  | None DI                               | , co ye , Li K | Dla .   | ₩ redray o Ottedgay             |
| Corrective Lens: N              |                           | Size: KEqual          |                          |   | Able to follo                         | v stimulus;    | Yes O No  | Eyelids:                        |
| □ Glasses □ Contacts, if so     | □ Hard □ Seft □ Un        | equal (explain)       | •                        |   | <i>:</i> [                            |                |   | XNormal Droopy                  |
| 70.1 6.75                       | TON.                      | Tath Poor Pi          | h. Fua                   | lautina) Nuntara                        | nus? d Yes WNo                        |                | One Leg Star                                    | LEG TREMORS                     |
| Pulse & Time                    | HGN                       | Left Eye Rig          | ht Eye \                 | erticat Ivystagi                        | T#43: C 159 N 140                     |                |   | (N)                             |
| 1.112 12335                     | Lack of Smooth Pursuit    | 100                   | <u>აი</u>   <sup>0</sup> | Convergence                             | · ,                                   |                | (B)   |                                 |
| 2. 114 / 2347                   | Max. Deviation            | NO E                  | 20                       | Right Eye                               | Left Eye                              | •              | U _ U   | 8 _                             |
|                                 |                           |                       | <del></del>              |   |                                       |                | Q   | Q Q                             |
| 3.112 12357                     | Angle of Onset            |                       | 13×2×                    |   | ot Keep Balance                       |                | الاق<br>الاق                                    | , 730                           |
| Romberg Balance Approx. Approx. | Walk and Turn T           | est<br>Trences        | 1                        |   | Too Soon                              |                | T. 12   |                                 |
|                                 |                           |                       | <u>್</u>                 | ٠ <u>د</u>                              |                                       | e 2 Nine       | \$ \$\$ \tag{j} \tag{j} \tag{j} \tag{j} \tag{s} | vays While Balancing            |
| TEPENOUS O                      |                           |                       |                          | <b></b>                                 | Walking                               |                | # <i>51</i> 0                                   | ses Arms to Balance             |
| TIPEMOUS                        | 1                         |                       |                          | 3                                       | Heel-Toe                              |                | ₩ <i>\$</i> /"                                  | ses Arms to Dalance             |
|                                 |                           | والمراوات             |                          | ~                                       | Off Line                              | _ _,           | 0 · D He  | opping                          |
|                                 | ا سلېک                    |                       |                          | * Raises                                | 925                                   | . 1/1          | p p/Pu  | its Foot Down                   |
| CIRCULAR SUR                    | 7                         |                       |                          | Actuai                                  | Steps Taken                           | 9              | J 77 * 5  |                                 |
| Internal Clock                  | Describe Turn             |                       |                          | Cannot Do Te                            | st (Explain)                          |                | Type of Poots                                   | vear                            |
| 43 Estimated At 30              | Sec. AS INSCREAM          | CHED BUT S            | الصب                     | 13/A.                                   |                                       |                | SAUDAI  | -s                              |
| F                               |                           |                       | Pupil Size               | Room Ligh                               | t Darkness                            | Direct         | Nasal Area                                      | · ·                             |
| EYELIA TREMORS (                | ⊃ Right` △ Left           | Ĺ                     |                          |   |                                       | ,              | cone  | ,                               |
|                                 | w lines from spot touched | ι, [                  | Left Eye                 | 5.5                                     | 7.0                                   | 5.0            | Oral Cavity                                     | ಕ್ರಾಯಾನಿಗೆ,                     |
| 1 1/-                           | -                         | \L                    | Right Eye                | 5.5                                     | 7.0                                   | 5.0            | 1   | בסגדונצם טט דכאטי               |
|                                 | $\neg \cdot ( \neg )$     | $\Lambda$             | Hippus                   |   |                                       | Reaction To    | <u> </u>  |                                 |
|                                 |                           | KI .                  |                          |   | Yes "XNo"                             | NORM A         | <u>.</u>  |                                 |
|                                 |                           | Te/ }                 | <del>`</del>             | <del>,l</del>                           |                                       | 1              | <del>-</del>                                    | ·· —                            |
| 100                             |                           | PAI                   |                          | MORE ARM                                |                                       | um             | TARA  |                                 |
|                                 |                           | 44                    |                          |   |                                       | ·              | (   |                                 |
| 1 ~ N                           | ~ <del>_</del>            |                       |                          | -                                       |                                       |                |   |                                 |
|                                 |                           | / 737 ]               |                          | مسمد.                                   |                                       | , ,            | ALTEN Y   |                                 |
|                                 | × / 1                     | <b>A</b>              |                          |   | / 50                                  | , NE           |   | , <del>,</del> ,                |
| (5)                             |                           | <u> </u>              |                          | سيب                                     |                                       |                |   | $\sim$                          |
| 1                               |                           |                       | •                        | <b>E</b> _                              |                                       |                |   |                                 |
| Blood Pressure 140              | ්/ 1්ර්ථTem               | p 98.6 .              |                          |   |                                       |                |   | 12                              |
|                                 | Flaccid O Rigid           | •                     |                          | ,                                       |                                       | Ta 2 25        |   | • ,                             |
| Comments:                       | , ** .                    |                       |                          | Att                                     | ach Photos Of I                       | resh Pu        | ncture Mark                                     | s                               |
| What Medicine or Drug Ha        | ve You Been Using?        | How Much?             | Time of U                | se? W                                   | here Were The Dru                     | gs Used? (L    | ocation)  | <u> </u>                        |
| ]                               |                           | ۸۰/۵                  | بنت من                   | 1                                       | ,                                     | , ∵>≘∑         | •   |                                 |
| Date/Time of Arrest             | Ti-                       | ae DRE Notified       |                          |   | al Start Time                         |                | Time Complet                                    | ed                              |
| ್ಡ-7≀-೧≀ ೧ಶತಾ                   | 1                         | •                     | 2318                     | L                                       | D ?                                   | ऽ' <b>३</b> ८  | 00.10   | 3-77-01                         |
| dember Signature Unclude        | Rank)                     | CNHT5A                | ID No.                   |   | eviewed By:                           | ودر و در در د  | خا <u>ب</u> اي يان                              | .4                              |
| Opinion of Evaluator:           | D Rule Out                | D Alcohol             | O Stimu                  | ant <table-cell-rows></table-cell-rows> | PCP                                   | ı              | □ lahalant                                      |                                 |
|                                 | ti Medical                | D Depressant          | O Halluc                 | inogen O                                | Narcotic Analgesic                    | ٠, ١           | 🗅 Cannabis                                      | . •                             |
| 1                               |                           |                       |                          | <del></del>                             | · · · · · · · · · · · · · · · · · · · | <del></del>    |   |                                 |

| •                      | DRUG INFLUENCE EVALUATION  | Page 2 of 2   |  |  |  |  |
|------------------------|--|---|--|--|--|--|
| LOG NO.                | DRE: Sandy Richardson  | ARRESTEE: Gary Fief                                   |  |  |  |  |
| 5. INITIAL OBSERVATION | 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |  |  |  |  |
| 1. LOCATION: Exami     | nation of Gary Fief took place in the DRE r  | oom, Valley Traffic Division, LAPD                    |  |  |  |  |
| 2. WITNESS: Arresting  | officer Bill Quigley, NHSP   |   |  |  |  |  |
| 3. BREATH TEST: Q      | nigley administered breath test to Fief the r  | esult was 0.00 and 0.00.                              |  |  |  |  |
| 4. NOTIFICATION /      | INTERVIEW of ARRESTING OFFICER   | t: Writer was contacted by radio and advised          |  |  |  |  |
| to return to Valley    | raffic Division to conduct a DRE evaluatio   | n. Quigley stated he had observed the subject         |  |  |  |  |
| driving very slowly (  | @20 mph) without headlights and impeding   | traffic.  |  |  |  |  |
| 5. INITIAL OBSERVA     | ATIONS: Writer observed the subject seate  | d int he breath testing room. Subject appeared        |  |  |  |  |
| passive, quiet, and se | eemed uninterested in what was going on ar   | ound him. However, he was cooperative and             |  |  |  |  |
| responsive when I ta   | lked with him.   |   |  |  |  |  |
| 6. MEDICAL PROBL       | EMS: None noted or stated  |   |  |  |  |  |
| 7. PSYCHOPHYSICA       | L TESTS: Romberg Balance: Subject sw   | ayed approximately 2" in a circular motion, and       |  |  |  |  |
| exhibited eyelid trem  | ors, and estimated 43 seconds as 30 second   | s. Walk and Turn: Subject lost his balance during the |  |  |  |  |
| instructions and raise | d his arms for balance. One Leg Stand: Sul   | oject raised his arms, swayed, and put his foot down. |  |  |  |  |
| Finger to Nose: Subj   | ect swayed, exhibited eyelid tremors, and  | nissed the tip of his nose.                           |  |  |  |  |
| 8. CLINICAL INDICA     | ATORS: Subject's pulse and blood pressur   | e were above the normal range. His pupils were        |  |  |  |  |
| dilated, there was lac | k of convergence, and reddening of the cor   | ijunctiva.  |  |  |  |  |
| 9. SIGNS of INGEST     | ION: Subject had a brownish - green colora   | tion on his tongue.                                   |  |  |  |  |
| 10. STATEMENTS: S      | ubject denied using any medication or drug   | 3.  |  |  |  |  |
| 11. OPINION of EVA     | LUATOR: In my opinion Gary Fief is und   | er the influence of                                   |  |  |  |  |
| and unable to opera    | ite a vehicle safely.  |   |  |  |  |  |
| 12. TOXICOLOGICA       | L SAMPLE: Subject agreed to provide a u  | rine sample.  |  |  |  |  |
| 13. MISCELLANEOU       | S: Throughout the evaluation subject exhib   | ited eyelid and muscle tremors.                       |  |  |  |  |
|                        |  |   |  |  |  |  |
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**Drug Influence Evaluation** Rolling Log No. 40 DRE No 0501 BOB ▶ None □ Injury O Property II Fatal Arresting Officer (Name, ID No.) DOB <u>Khoenix</u> PD UNSWORTH 4-16-41 Urine DBlood Chemical Test Breath Results: 0. 000 Refused Instrument # 1234 □ Refused Have you been drinking? How much? Time of last drink? What have you eaten today? Miranda Warning Given: . NIA RESPONSE NO RESPONSE Are you diabetic or epileptic? □Yes □No Heru Slow Blindness: SLOW ●None □LEye □REye **≢**Equal □ Unequal O Normal Bloodshot O Watery Eyelids: Able to follow stimulus: SYes C No Corrective Lens: None Glasses Contacts, if so Chard Coft Mormal Droopy □ Unequal (explain) Vertical Nystagmus? 

Yes □ No Right Eye Left Eye HGN Pulse & Time Convergence Right Eye ,2307 4es Yes Lack of Smooth Pursuit Left Eye Max. Deviation 300 Je vet moveo Angle of Onset Walk and Turn Test Arms and leas Rigid Cannot Keep Balance Romberg Balance Starts Too Soon R Sways While Balancing Апргох. 2<sup>rd</sup> Nine 14 Nine Stops Walking Uses Arms to Balance Misses Heel-Toe P5 AII STA Steps of Line VVVV 1 Hopping VVVV Aprual Steps Taker Puts Foot Down mmmm Type of Footwear Cannot Do Test (Explain) Describe Turn Did not Leave. Internal Clock
55 Esti NIA RUNNING Shoes \_\_Bstimated At 30 Sec. FRANT FOOT Stationary Nasal Area Darkness Direct Room Light HAD TO BE ORIGIN A Left 50-7.5 Oral Cavity Small Bits 50-7.5 OF Breen Leafy Reaction To Light Left Eye 4.5 Right Eye 5 Rebound Dilation Hippus □ Yes • No Yes □ No Arms. NORMA  $\bigcirc$ the BLE (4) RIGID Temp 99.8 Muscle Tona: C Normal D Flaceid Rigid Attach Photos Of Fresh Puncture Marks JERY RIGID Where Were The Drugs Used? (Location) How Much? What Medicine or Drug Have You Been Using? Blank Stake 10 Response resent ID No. 0123 O Stimulant ti Inhalant □ Alcohol Opinion of Evaluator: a Rule Out @ Hallucinogen □ Narcotic Analgesic Cannabis □ Medical □ Depressant

| •   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
|   | DRUG INFLUENCE EVALUATION  | Page <u>2</u> of <u>2</u>                              |  |  |  |  |
| LOG NO.   | DRE: Sgt. Bob Sparks   | ARRESTEE: Jerome Powel                                 |  |  |  |  |
| 5. INITIAL OBSERVATION  | 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |  |  |  |  |  |
| 1. LOCATION: Examin   | nation of Jerome Powel took place in the DF  | RE room, Traffic Office, Phoenix Police Dept.          |  |  |  |  |
| 2. WITNESS: Officer Ja  | ames Unsworth, #1811 PPD   |  |  |  |  |  |
| 3. BREATH TEST: W   | riter administered breath test to Powel the r  | esult was 0.00%.                                       |  |  |  |  |
| 4. NOTIFICATION / I   | NTERVIEW of ARRESTING OFFICER  | : Writer was present at the time of arrest.            |  |  |  |  |
| 5. INITIAL OBSERVA  | ATIONS: Writer was supervising a sobriety  | check point and Officer Unsworth approach a            |  |  |  |  |
| vehicle and initiate a  | conversation with the subject. When the su   | bject exited his vehicle, he was unsteady on his feet, |  |  |  |  |
| and very slow in resp   | oonding to Officer Unsworth's questions and  | l instructions.  |  |  |  |  |
| 6. MEDICAL PROBLE   | EMS: None noted or stated  |  |  |  |  |  |
| 7. PSYCHOPHYSICA  | L TESTS: Romberg Balance: Subject swa  | yed approximately 3" side to side, and                 |  |  |  |  |
| estimated 55 seconds  | as 30 seconds. Walk and Turn: Subject lost   | his balance during the instructions, stepped off the   |  |  |  |  |
| line, missed heel to to   | pe, stopped walking, raised his arms for bala  | nce, and turned improperly.                            |  |  |  |  |
| One Leg Stand: Subje  | ect raised his arms, swayed and put his foot   | down. On the second legs he could not maintain his     |  |  |  |  |
| balance and the test v  | was terminated for his safety. Finger to Nos   | e: Subject missed tip of his nose each time, and kept  |  |  |  |  |
| his finger in contact   | with the face on every trial.  |  |  |  |  |  |
| 8. CLINICAL INDICA  | TORS: Subject had HGN, Vertical Nystago  | mus and Lack of Convergence. His pulse, blood          |  |  |  |  |
| pressure, and temper  | rature were all elevated. His pupils were dil  | ated in near total darkness and exhibited rebound      |  |  |  |  |
| dilation.   |  |  |  |  |  |  |
| 9. SIGNS of INGESTI   | ON: Subject's breath had an odor of mariju   | ana and there was vegetable material on his teeth.     |  |  |  |  |
| 10. STATEMENTS: Se  | bject denied using any medication or drugs   |  |  |  |  |  |
| 11. OPINION of EVAL   | LUATOR: In my opinion Jerome Powel is  | under the influence of a                               |  |  |  |  |
| and unable to operate a vehicle safely.                             |  |  |  |  |  |  |
| 12. TOXICOLOGICAL SAMPLE: Subject agreed to provide a urine sample. |  |  |  |  |  |  |
| 13. MISCELLANEOU  | S:   |  |  |  |  |  |
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Drug Influence Evaluation Kolling Log 19-02/3 KandyAOPS A None O Injury a Property D Fatal Arresting Officer (Name, II , Ken 150 b Chemical Test □ Urine Breath Results: (2007 Refused □ Refused Instrument#/234 12000 0200 Time of last drink? How much? Have you been drinking? Miranda Warning Given: g Yes □ No Coca Cola By: Authier, Ken Are you diahetic or epileptic? Are you sick or injured? Time now? When did you last sleep? How long? □Yes ANo Lastnight, all night 9 pm Are you under the care of Do you have any physical defects? O Yes No a doctor or dentist? D Yes No Attitude With grawn, passive Are you taking any medication or drugs? @ Yes RNo Stumbling Chemical Odor Tracking: TEqual © Unequal Eyes: © Reddened Conjunctiva

O Normal Bloodshot Watery Blindness: Speech KNone GLEye GREye Slow, Slurred, raspy
Corrective Lens: #None Able to follow stimulus: TYes I No Pupil Size: & Equal K Normal Droopy □ Unequal (explain) □ Glasses □ Contacts, if so □ Hard □ Soft Vertical Nystagmus? NYes □ No Right Eye Left Eye HGN Pulse & Time 102,0210 4es 425 Convergence Lack of Smooth Pursuit Left Eye Right Eye yes 104,02.22 4es Max. Deviation <u>35°</u> 104,0232 Angle of Onset Cannot Keep Balance Walk and Turn Tester Starts Too Soon 2<sup>≥</sup> Ning Sways While Balancing Stops Walking Uses Arms to Balance Misses Heel Toe Steps Off Line ☐ Hopping Raises Arms · d Puts Foot Down Actual Steps Taken Cannot Do Test (Explain) Describe Turn Wery Slow, as Internal Clock
\_\_\_\_\_\_Estimated At 80 Sec. instructed and stiff Flat shoes Nasal Area Runny nose Daint smears on face. Pupil Size Room Light Darkness Direct ○ Right △ Left Left Bye 6.5 4.5 5.0 Oral Cavity Draw lines from spot touched Clear Right Eye 6.5 4.5 5. O Reaction To Light Rebound Dilation Hippus □ Yes KNo. o Yes ★No NORMAI /1  $\bigcirc$ **y**3` Parit & **(4**) Smear <u>6</u>\ Swaying 98.8 Temp Blood Pressure Muscle Tone: Normal D Flaccid Attach Photos Of Fresh Puncture Marks Where Were The Drugs Used? (Location) Time of Use? What Medicine or Drug Have You Been Using? How Much? No Answer No answe Nothing No answer effine of Arrest 0/30
7/2000 0/30
mbet Signatur (Include Cank) Eval Start Time ID No. 1776 D PCP □ Inhalant □ Cannabis O Stimulant □ Alcohol Opinion of Evaluator: . D Narcotic Analgesic □ Depressant 🛘 Hallucinogen Medical

|  | DRUG INFLUENCE EVALUATION                     | Page_2_of_2  |  |  |  |
|--|---|--|--|--|--|
| LOG NO.  | DRE: F/Sgt. Bill Tower                        | ARRESTEE: Bob Jacobs                               |  |  |  |
| 1. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |  |  |  |  |
| 1. LOCATION: Exami   | nation of Bob Jacobs took place in the DRE    | room, Howard County Police Dept.                   |  |  |  |
| 2. WITNESS: Sgt. Ken   | Authier                                       |  |  |  |  |
| 3. BREATH TEST: Sg   | t. Ken Authier administered breath test to J  | acobs the result was 0.00%.                        |  |  |  |
| 4. NOTIFICATION / 1  | INTERVIEW of ARRESTING OFFICER                | : Writer was the evaluating officer.               |  |  |  |
| 5. INITIAL OBSERVA   | ATIONS: Sgt. Authier was at residence whe     | n awaken by loud shouts and arguing voices.        |  |  |  |
| Through window, wr   | iter observed four individuals standing on th | e front lawn. Three were young males, and one      |  |  |  |
| female, they were sho  | outing at and pushing each other. The arrest  | ee was standing passively several yards away. Upon |  |  |  |
| turning on the outside   | e light and exiting my residence, the two ma  | les and one female fled. The arrestee subject      |  |  |  |
| remained standing on   | the lawn. He appeared dazed and confused      | . There was a strong chemical odor emanating from  |  |  |  |
| him.   |   |  |  |  |  |
| 6. MEDICAL PROBLE  | EMS: None noted or stated                     |  |  |  |  |
| 7. PSYCHOPHYSICA   | L TESTS: Romberg Balance: Subject swa         | yed approximately 2" in a circular motion, and     |  |  |  |
| estimated 90 seconds   | s as 30 seconds. When asked, "how long he     | had been instructed to keep his eyes closed." He   |  |  |  |
| stared straight ahead  | for a few seconds and then said, "what? wha   | at did you say?" When the question was repeated    |  |  |  |
| he slowly shrugged a   | nd said, "I don't know?" Walk and Turn: S     | ubject lost his balance during the instructions,   |  |  |  |
| stopped walking, rais  | ed his arms for balance, and missed heel to   | toe and stepped off the line. On several occasions |  |  |  |
| he asked,"What do y  | ou want me to do next?" One Leg Stand: S      | ubject could not maintain his balance and the test |  |  |  |
| was stopped for his  | safety. Finger to Nose: Subject missed tip o  | f his nose each time, and kept opening his eyes.   |  |  |  |
| 8. CLINICAL INDICA   | TORS: Subject had HGN, Vertical Nystagr       | nus and Lack of Convergence. His pulse and         |  |  |  |
| blood pressure were  | above the normal range.                       |  |  |  |  |
| 9. SIGNS of INGESTI  | ON: Subject's breath had a strong chemical    | odor. He had what appeared to be paint smears on   |  |  |  |
| his nostrils, lips and   | right hand.                                   |  |  |  |  |
| 0. STATEMENTS: Subject denied using any medication or drugs.   |   |  |  |  |  |
| 1. OPINION of EVALUATOR: In my opinion Bob Jacobs is under the influence of a  |   |  |  |  |  |
| and unable to operat   | te a vehicle safely.                          | ·  |  |  |  |
| 12. TOXICOLOGICA   | L SAMPLE: Subject agreed to provide a blo     | ood sample.  |  |  |  |
| 13. MISCELLANEOU   | S:  |  |  |  |  |
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Drug Influence Evaluation Rolling Log 10. 0210 5601 Evaluator Tony Simms None Injury Crash: Recorder/Witness o Property T. Herndon (HCSO) Arresting Officer (Name, ID N Race PPD 01-21-75 milstead, F. W m **≭**Urine □ Blood Breath Results 2000 Refused Chemical Test Date Examined/Time/Location D Refused 1234 Instrument# Central Intox 10-2-2000 Time of last drink? How much? Have you been drinking? Yes CiNo What have you eaten today? When? Miranda Warning Given: Nothing at all Cornflakes. morning By: F. Milstcaa Are you diabetic or epileptic? n No C Time now? When did you last sleep? Are you sick or injured? How long? ⊔Yes **)** No Feelstomach sick Midnight I don't remember Are you under the care of Do you have any physical defects? O Yes KNo Do you take insulin? a doctor or dentist? DYes #No Attitude Cooperative, but slow Poor, Stumbling Are you taking any medication or drugs? Yes No ImpreHy clean Normal Tracking: #Equal Unequal Blindness: Reddened Conjunctiva None DLEye DREye Normal DBloodshot DWatery slow low raspy Eyelids: Able to follow stimulus: A Yes O No Eyelids: Very
UNormal E Droopy Pupil Size: MEqual

O Unequal (explain) Corrective Lens: □ Glasses □ Contacts, if so □ Hard □ Soft One Leg Stand Vertical Nystagmus? 🗆 Yea ≱ No Left Eye Right Eye. stopped on HON 435 No No Convergence Lack of Smooth Pursuit Right Eye Left Eye No NO 1950 Max. Deviation None None Angle of Onset Cannot Keep Balance Walk and Turn Test Romberg Balance Арргох. Starts Too Soon Approx. 1<sup>4</sup> Njde ∕ 2<sup>™</sup> Nija □ Sways While Balancing Stops Walking Uses Arms to Balance Misses Heel-Toe Steps Off Line □ Hopping Raises Arms Puts Foot Down Actual Steps Taker Type of Footwerr boots Cannot Do Test (Explain) Describe Turn Lost balance Internal Clock

So Estimated At 30 Sec. N/A staggered to the right. Nasal Area clear Direct Room Light Darkness Pupil Size ○ Right △ Left Left Eye 7.5 1.5 1.5 Oral Cavity Draw lines from spot touched Clear Right Eye 1.5 1.5 Reaction To Light LIHIE OF Rebound Dilation Hippus 🗆 Yes □ Yes **K**No visible none Scar \<u>\</u>  $2\overline{c}$ scabs **√**3` <u>6</u>\ Attach Photos Of Fresh Puncture Marks Temp\_ Muscle Tone: O Normal P Flacaid O Rigid Comments: Neck rubbery Time of Use Yould Where Were The Drugs Used? (Location) How Much? What Medicine or Drug Have You Been Using? Im clean now. Im notusing now. alean Im clean Time Completed 2010 Date/fime/of Arrest /9/5
/0/2/2000 /9/5
Member Signature Granude Rank) ID No. 5211 M. DC METRO O Inhalant □ PCP □ Stimulant 🗅 Alcohol Opinion of Evaluator: E Rule Out O Narcotic Analgesic □.Cannabis Depressant □ Hallucinogen O Medical

|  | DRUG INFLUENCE EVALUATION                       | Page_2_of_2   |  |  |  |  |
|--|---|---|--|--|--|--|
| LOG NO.  | DRE: Sgt. William Niles                         | ARRESTEE: Paul LaSaile                                |  |  |  |  |
| I. LOCATION 2. WITNESS 3. BREATH TEST 4. NOTIFICATION / INTERVIEW ARRESTING OFCR. 5. INITIAL OBSERVATIONS 6. MEDICAL PROBLEMS · 7. PSYCHOPHYSICAL 8. CLINICAL INDICATORS 9. SIGNS OF INGESTION 10. SUSPECTS STATEMENTS 11. OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |   |   |  |  |  |  |
| 1. LOCATION: Exami   | nation of Paul LaSalle took place in the hold   | ing area NRB  |  |  |  |  |
| 2. WITNESS: Arresting  | g Officer Frank Milstead #4443 PPD              |   |  |  |  |  |
| 3. BREATH TEST: Of   | fficer Milstead administered breath test to L   | aSalle the result was 0.00%.                          |  |  |  |  |
| 4. NOTIFICATION / I  | INTERVIEW of ARRESTING OFFICER                  | : Writer was assisting members of the Phoenix         |  |  |  |  |
| Police Department of   | conduct a drug surveillance at Compton Terr     | ace, prior to a 'Graceful Chickens' concert. Officer  |  |  |  |  |
| Milstead had receive   | ed information, that there was a very drunk i   | ndividual seated near the entrance to Compton         |  |  |  |  |
| Terrace. The subject   | t appeared very sleepy and was very unstead     | y while walking, even while being supported.          |  |  |  |  |
| 5. INITIAL OBSERVA   | ATIONS: Writer observed subject seated in       | a chair his head was flopped down against his chest   |  |  |  |  |
| and he appeared to b   | e sleeping. As he walked, he was very unst      | eady unsteady and stumbling. His pupils were          |  |  |  |  |
| constricted and his ve   | oice was low, slow, and raspy.                  |   |  |  |  |  |
| 6. MEDICAL PROBLE  | EMS: Subject indicated some nausea.             |   |  |  |  |  |
| 7. PSYCHOPHYSICA   | L TESTS: Romberg Balance: Subject swa           | yed approximately 1" side to side, 2" front to        |  |  |  |  |
| back, and estimated 5  | 8 seconds as 30 seconds. Walk and Turn: S       | ubject lost his balance during the instructions,      |  |  |  |  |
| stopped walking, miss  | sed heel to toe, stepped off the line, and used | his arms for balance. One Leg Stand: Subject was      |  |  |  |  |
| unable to perform tes  | et, and it was terminated for his safety. Fing  | er to Nose: Subject missed tip of his nose each time, |  |  |  |  |
| His movements were   | very slow, and his head was leaning forward     | I towards his chest.                                  |  |  |  |  |
| 8. CLINICAL INDICA   | ATORS: Subject had constricted pupils. His      | pulse, blood pressure and body temperature were       |  |  |  |  |
| below the normal ran   | ge.   |   |  |  |  |  |
| 9. SIGNS of INGESTI  | ON: Subject had several old track marks on      | both arms, and fresh puncture wounds on his left      |  |  |  |  |
| hand. All three of th  | nese were oozing clear fluid.                   |   |  |  |  |  |
| 10. STATEMENTS: Su   | ibject made several statements about being "    | clean" and "not using now."                           |  |  |  |  |
| He repeatedly answe  | ered "not sick" to questions concerning the u   | se of medication. He also failed to respond to a      |  |  |  |  |
| couple of the questi   | ions  |   |  |  |  |  |
| 11. OPINION of EVAL  | JUATOR: In my opinion Paul LaSalle is un        | der the influence of a                                |  |  |  |  |
| and unable to operat   | te a vehicle safely.                            |   |  |  |  |  |
| 12. TOXICOLOGICAI  | L SAMPLE: Subject agreed to provide a uri       | ne sample.  |  |  |  |  |
| 13. MISCELLANEOUS  | S:  |   |  |  |  |  |
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**Drug Influence Evaluation** DRE No 0801 STEVE Crash: NC ♥ None □ Property D Fatal O Injury Arresting Officer (Name, ID No.) DOB Sex MARK YONS Lewis. W Chemical Test **U**rine □ Blood Breath Results: 0.000 Refused Date Examined/Time/Location Refused Instrument#1234 WbD -5-00 How much? Time of last drink? Have you been drinking? What have you eaten today? When? Miranda Warning Given: BY: STEVE NOthing I Are you diabetic or epileptic? Are you sick or injured? How long? Time now? When did you last sleep? Feel Are you under the care of Do you have any physical defects? **⊳**No □ Yes a doctor or dentiet? • • Yes Coordination Are you taking any medication or drugs? TYes No Laughing to Stumbling Eyes: Reddened Conjunctiva

Normal Bloodshot D. Watery

BUG EYED SARE Tracking: Equal D Unequal Blindness: Speech None □ LEye C R Eye Mumbled, INCOherent SHOUTING Eyelids: Wide O'Normal O'Droopy Able to follow stimulus: ₽ Yes a No Pupil Size: Fequal Duragual (explain) Corrective Lens: None

Glasses G Contacts, if so G Hard G Soft One Leg Stand Right Eye Vertical Nystagmus? □ Yes **₫** No Pulse & Time Left Eye HGN 16,2110 Lack of Smooth Pursuit Convergence N٥ N٥ Right Eye Left Eye Max. Deviation NO Q NONE None Angle of Onset Cannot Keep Balance Walk and Turn Test TEST COULD NUT STA Romberg Balance Starts Too Scon. 1" Nine 2" Nine Sways While Balancing Stops Walking Heel-TOE ;□; Uses Arms to Balance Misses Heel-Toe Steps Off Line . O Hopping Raises Arms . Puts Foot Down Actual Steps Taken Cannot Do Test (Explain) LOST BALANCE Type of Footwear Describe Turn Internal Clock NA Estimated At 30 Sec. 3Times Nearly Fell Pupil Size Room Light Darkness TEST SOPPED O Right () Left Left Eye RGGERE Blaw lines from spot touched B.5 6.0 Oral Cavity 5 Right Eye 8.5 6.0 6 Reaction To Light Rebound Dilation Hippus □ Yes Ø No ☐ Yes PNo NORMA Blood Pressure Muscle Tone: Prormal - Flaccid . Rigid Attach Photos Of Fresh Puncture Marks Comments: Where Were The Drugs Used? (Location) How Much? RESPONSE Time DRE Notified Time of Use? What Medicine or Drug Have You Been Using? AUGHING JAUGHING LAUGHING Uncontroll Time Completed Eval Start Time Date/Time of Arrest
| 1-5-00 20
| Member Signature (Include Ran 2050 he <sup>ID No.</sup> 1586 n PCP □ Inhalant O Alcohol □ Stimulant Opinion of Evaluator: D Rule Out □ Cannabis O Narcotic Analgesic O Depressant D Hallucinogen □ Medical

|                     | DRUG INFLUENCE EVALU                     | ATION Page 2 of 2  |
|---------------------|--|--|
| LOG NO.             | DRE: Sgt. Steve Toland                   | ARRESTEE: J.B. Lyons   |
| 5. INITIAL OBSERVA  | TIONS 6. MEDICAL PROBLEMS 7. P           | ATION / INTERVIEW ARRESTING OFCR. SYCHOPHYSICAL 8. CLINICAL INDICATORS . OPINION 12. TOXICOLOGY SAMPLE 13. MISC. |
| 1. LOCATION: Exam   | mination of J.B. Lyons took place in the | ne DRE room, Mesa P.D. Hdqtrs  |
| 2. WITNESS: Arrest  | ing Officer Mark Lewis #4196 MPD         |  |
| 3. BREATH TEST:     | Officer Lewis administered breath te     | st to Lyons the result was 0.00%.  |
| 4. NOTIFICATION     | /INTERVIEW of ARRESTING O                | FFICER: Writer was contacted by radio and advised to   |
| return to Hdqtrs to | conduct a DRE evaluation. Officer L      | ewis informed me that the subject had nearly been involved   |
| in a head on accide | ent.                                     |  |
| 5. INITIAL OBSER    | VATIONS: Writer observed subject s       | eated in the breath test room at Hdqtrs. He was talking to   |
| himself and laugh   | ing uncontrollably.                      |  |
| 6. MEDICAL PROI     | BLEMS: None noted or stated              |  |
| 7. PSYCHOPHYSIC     | CAL TESTS: Romberg Balance: Sub          | ject swayed approximately 2" front to back, and 4" side to.  |
| side. The test was  | terminated for the subjects safety. Wa   | ilk and Turn: Subject was unable to complete, test terminate   |
| stopped for the sul | bjects safety. One Leg Stand: Subject    | was unable to complete, test was terminated for the subject  |
| safety. Finger to l | Nose: Subject was unable to complete.    |  |
| 8. CLINICAL INDI    | CATORS: Subject's pupils were dila       | ted, and his pulse, blood pressure and temperature were  |
| above the normal    | range.                                   |  |
| 9. SIGNS of INGES   | TION: None noted                         |  |
| 10. STATEMENTS:     | Subject stated he had not used any dr    | ugs since the 60's   |
| 11. OPINION of EV   | ALUATOR: In my opinion J.B. Lyo          | ns is under the influence of a   |
| and unable to ope   | erate a vehicle safely.                  |  |
| 12. TOXICOLOGIC     | CAL SAMPLE: Subject agreed to pro-       | víde a urine sample,   |
| 13. MISCELLANEC     | ous:                                     |  |
|                     |  |  |
|                     |  |  |
|                     |  |  |

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# SESSION XXVI

PREPARING THE NARRATIVE REPORT

### SESSION XXVI PREPARING THE NARRATIVE REPORT

Upon successfully completing this session, the participants will be able to:

- o Discuss the essential elements of the DRE report.
- o Prepare a clear and concise narrative description of the results of the Drug Recognition Evaluation.

#### The Importance of a Good DRE Report

Successful prosecution of a DRE case will depend, more than anything else, on the evidence that you supply, and on how clearly and convincingly you present that evidence. The chemist or toxicologist may also be able to provide some important evidence, but the results of the blood or urine analysis definitely play a supportive, or corroborative role. The chemical test simply cannot prove that the suspect was impaired, or under the influence at the time the violation occurred. It is up to you to prove that, and to prove that the nature of the impairment was consistent with some category or categories of drugs. Your observations, examinations and your expertise are the prosecution's strongest weapons. In some cases, they will be the only weapons. You have to get your evidence across, and you have to make it as believable as possible. You start doing this in your DRE report.

The DRE Report has two major sections. The first is the standard Drug Influence Evaluation Face Sheet. Its purpose is to document the results of all observations and examinations that you personally made of the suspect. This Face Sheet is a unique document. It is used by every law enforcement agency that participates in the NHTSA/IACP Drug Evaluation and Classification Program. It contains some very important information, and it must be filled out accurately and completely. But it does not constitute the entire DRE report. A narrative section also must be prepared. The narrative section must be a clear, plain English and detailed rendition of all evidence obtained during all twelve components of the DRE examination, including the breath test result; the information obtained from your interview of the arresting officer; statements, actions, gestures, etc. made by the suspect; paraphernalia found in the suspect's possession; to name a few. Bear in mind that the Face Sheet is a technical document. As a DRE, you are very familiar with the Face Sheet, and with its various symbols, and abbreviations. But many prosecutors, most judges and virtually all jurors won't know how to interpret the Face Sheet. It is up to you to "translate" the Face Sheet and all other evidence into language that they can understand. That's where the narrative section of your report comes in.

# Standard Procedures for Completing the Face Sheet

The Standard Drug Influence Evaluation Face Sheet must be completed, in its entirety, every time you conduct an evaluation of a person suspected of drug impairment. Follow the guidelines given in the paragraphs below every time you complete a Face Sheet.

In order to assist with the interpretation of the information on the face sheet, boxes on the face sheet should not be left blank. It is recommended that "N/A" or "None Observed" be used.

The first two lines of the standard Drug Influence Evaluation Report consists of spaces to record data consistent with your department's standard operating procedures.

| EVALUATOR:       | DRE No.                      | Rolling Log No. |  |
|------------------|------------------------------|-----------------|--|
| Recorder/Witness | Crash: □Non<br>□ Fatal □Inju | <del>-</del>    |  |

On the next three full lines of the report, you will record identifying information about the suspect, the arresting officer, and the time and place where the DRE examination was conducted. You will also note the results of the breath test (if available), and note the type of sample (blood or urine) taken for drug analysis. You will indicate whether the suspect was admonished of his or her constitutional rights in accordance with the <u>Miranda</u> ruling, and if so, by whom.

| ARRESTEE'S NAME (LAST, FIRST, MI)       | DOB                                     | SEX | RACE    | Arresting Officer (Name, ID No.)                      |  |  |
|---|---|-----|---------|---|--|--|
| DATE EXAMINED/TIME/LOCATION .           | BREATH RESULTS: ©Refused<br>Instrument# |     | efused  | CHEMICAL TEST DUrine DEfood  DRefused                 |  |  |
| MIRANDA WARNING GIVEN: "Yes "INo<br>By: | What have you eaten today? Whon?        |     | ? When? | Have you been drinking? How much? Time of last drink? |  |  |

Starting on the sixth line, and continuing through the tenth line, you will record the results of the <u>preliminary examination</u> of the suspect. If the suspect merely responds "yes" or "no" to a question, you may simply put a mark through the appropriate box on the right side of the space provided for the question. But if they embellish the response, you should use the space provided to document the response. For example, if the suspect were to answer the question "what have you eaten today" in an obviously false or ridiculous manner ("I haven't eaten for six years"), you should record that answer verbatim.

| Time Now?   | When did you last sleep? How long?          | Are you sick or injured? IYes INo                         | Axe you diabetic or epileptic?  UYes UNo                              |  |  |
|---|---|---|---|--|--|
| Do you take in                                      | aulin? OYes ONo                             | Do you have any physical defects? OYes<br>ONo             | Are you under the care of a doctor or dentist? DYes UNo               |  |  |
| Are you taking any medication or drugs? □Yes<br>□No |   | ATTITUDE  | COORDINATION  |  |  |
|   |   | BREATH  | FACE .  |  |  |
| SPECH   |   | EYES: □Reddened Conjunctiva<br>□Normal □Bloodshot □Watery | Blindness: Tracking: OF OF OF OLEye OR Tracking: OF OLEye OR OF OLEye |  |  |
| CORRECTIVE<br>UGlasses                              | LENS: ONone<br>OContacts, if so OHard OSoft | PUPIL SIZE: □Equal □Unequal (explain)                     | Able to follow stimulus: Eyelids: UYes UNo UNormal UDroopy            |  |  |

After completing the preliminary questioning of the suspect, be sure to record brief descriptions of their attitude, coordination, speech, breath and facial appearance. Check to determine the type of corrective lenses the suspect is wearing, if any, and record the general appearance of the suspect's eyes. Be sure to indicate whether the suspect is or claims to be blind in either eye. Check the suspect's tracking ability (just as you would test for lack of smooth pursuit). While you are assessing the suspect's tracking ability, you can also perform a preliminary assessment of whether horizontal gaze nystagmus is present in the suspect's eyes. In particular, if the nystagmus or "jerking" is observed, an <u>initial estimation of the angle of onset</u> can be made. The approximate angle of onset <u>may</u> help to determine whether the suspect has consumed some drug other than alcohol. Note whether the suspect's pupils are of equal size, and the condition of their eyelids.

Almost midway down the form, and on the left side, is the space to record the three measurements of the suspect's pulse that are required during the DRE examination. Always record the pulse in beats per minute. For example, since you use a 30 seconds interval to count the pulse, be sure to multiply the count by two, and record that result on the form. Also, always record the time at which each pulse count was taken.

PULSE & TIME

1. \_\_\_/\_
2. \_\_\_/\_\_
3. \_\_\_/\_\_

Record the results of the checks for Horizontal Gaze Nystagmus, Vertical Gaze Nystagmus and Lack of Convergence in the spaces at the center of the form. For HGN, write the word "YES" to indicate that there was a <u>Lack</u> of Smooth Pursuit, and write "NO" if the eye does pursue smoothly. In other words, "YES" means that evidence of HGN is present and "NO" means that the evidence wasn't found. Similarly, along the "Max. Deviation" line, write "YES" if there is distinct jerking when the eye is held as far to the side as possible, and write "NO" if the eye does not jerk distinctly. Along the "Angle of Onset" line, write the number of degrees at which the jerking first is noticed; estimate the angle to the nearest five degrees (i.e., 30, 35, 40, etc.). If the eyes actually jerk while the suspect stares straight ahead, write the word "RESTING" on the "Angle of Onset" line. If the jerking begins before the eye has moved to the 30-degree point, write the word "IMMEDIATE". Be sure to check each eye independently, and record the evidence of HGN separately for each eye.

HGN Left Eye Right Eye

Lack of Smooth Pursuit

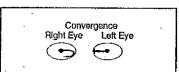
Max. Deviation

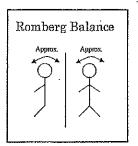
Angle of Onset

For the Vertical Gaze Nystagmus test, simply check either the "YES" or "NO" box, depending on whether the evidence was present or absent.

Vertical Nystagmus? □Yes □No

For the Convergence test, draw a circle in the middle of each "eye socket" provided on the form, and connect arrows to the circles to depict how the eyes moved when the test was given. For example, the sketch at the right shows that the left eye converged properly, while the right started to move in, and then drifted back out.



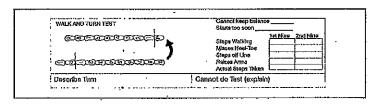


Spaces are provided to record in detail the suspect's performance of the four divided attention tests. Make sure that the Romberg Balance test is the first one that you administer. The two "stick figures" are used to indicate how much the suspect sways while standing with the eyes closed. The figure on the left (with only one arm and one leg visible) is used to depict front to back swaying; at the arrow points above the "head", write the approximate number of inches the suspect sways forwards and backwards from center. The figure on the

right (with two arms and legs) is used to depict side to side swaying. If the suspect sways in a circular manner, indicate by writing "Circular Swaying" across the "stick

figures". In the space marked "Internal Clock", write the number of seconds that the suspect actually stood with the eyes closed, while he or she attempted to estimate the passage of 30 seconds.

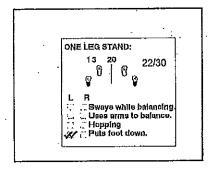
Internal Clock
\_\_\_\_Estimated At 30 Sec.



For the Walk and Turn test, you must diagram how the suspect walked, and you must indicate how often each of the eight validated clues was observed. On the diagram of

steps, when the suspect steps off the line, indicate with half a slash mark at an angle in the direction the step was taken. If the suspect stopped walking, draw a slash mark between the feet. The sketch to the left, for example, diagrams a test on which the suspect moved the right foot to the side twice while listening to the instructions; stepped off the line toward the left on the fifth step; and stopped after the fourth step on the way back down the line after turning. If the suspect misses heel to toe, indicate it with a slash mark between the feet with an "M" marked underneath. If the suspects stops walking, indicate that with a slash mark between the feet with an "S" marked underneath.

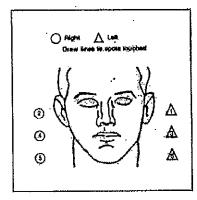
Anything else that is unusual or note-worthy about how the suspect walked should be indicated in writing near the diagram (e.g., "stopped counting aloud after the third step"). In the spaces provided to the right of the diagram of the feet, use check marks to record how often each clue was seen and the actual numbers of steps the suspect took. In the space below the diagram of the feet, write a brief but clear description of how the suspect executed the turn; if he or she turned in the proper fashion, simply write "PROPER". If the suspect was unable to complete the test, write an explanation of why the test was stopped.



For the One Leg Stand, you will diagram when the suspect put the foot down (if at all) and you will indicate how often each of the four validated clues was observed. Always have the suspect first perform this test by standing on the left foot. If the suspect puts the elevated foot down, indicate above the foot the number they were counting when they put their foot down. In our example, the suspect put the right foot down when they had counted to "one thousand and thirteen" and again when the count reached "one

thousand and twenty". Put check marks in or near the boxes below the sketch to indicate how often each of the four clues was seen while the suspect stood on the left foot. Place the count the suspect reached in 30 seconds in the top of the box over the foot they were standing on.

Then, have the suspect repeat the test by standing on the right foot, and use the right side sketch to record the results of that test. In the box below, indicate the type of footwear the suspect was wearing while performing these tests.



For the Finger to Nose test, you will diagram exactly where each finger tip touched the suspect's face. Simply draw a line from the point touched on the face to the symbol representing each finger (this makes it easier to draw a straight line). The finger symbols are numbered in the sequence in which you should instruct the suspect (i.e., "left, right, left, right, right, left"). If the suspect inadvertently uses the incorrect hand at some point, draw in an additional appropriate symbol (circle or triangle), write the trial number in it (1 to 6) and draw a line from it to the spot touched on the face.

Then, cross out the symbol for the finger that he or she should have used on that trial.

Pupil size estimations are to be recorded in the boxes provided. Using a pupillometer, record the size of the circle that comes closest to the size of the pupil. If a pupil appears to be slightly smaller than the 3.0 mm circle, DO NOT write 2.8 or 2.9 as the pupil size record to the nearest 1/2 mm!

| PUPIL SIZE  | Room Light | Darkness        | Direct          | NASAL AREA        |
|-------------|------------|-----------------|-----------------|-------------------|
| Left Eye    |            |                 |                 | ORAL CAVITY       |
| Right Eye   |            |                 |                 |                   |
| HIPPUS □Yes | □No        | REBOUND<br>□Yes | DILATION<br>□No | Reaction to Light |

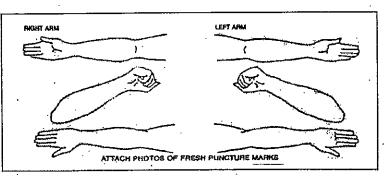
In the spaces provided, write a brief but clear description of anything noteworthy that you found in your examinations of the suspect's nose and mouth. If hippus or rebound dilation is observed, note that in the appropriate space. Remember, hippus refers to a pulsating pupil that rhythmically contracts and expands within fixed limits, for example always dilating to 5.0 mm and always shrinking back to 4.0 mm. Rebound dilation is a period of constriction followed by dilation with a change equal to or greater than 2 mm. For example, the pupil might initially expand to 5.0 mm, constrict, and then "balloon out" to 6 mm, constrict, then to 7 mm, etc. REMEMBER that sloppy procedure with the penlight could induce a response that could be confused with rebound dilation or hippus. If you inadvertently move the penlight closer to the suspect's eye and then draw it farther away, you will change the intensity of the light flooding into the eye and you may cause the pupil to constrict or dilate. Make sure that you always hold the light steady while making these examinations.

In the space provided, indicate how the suspect's pupils reacted when the light was directed into the eye. If the reaction appeared to be normal, write "Normal"; if it appeared to be a slow reaction but some shrinkage of the pupil was evident, write "Slow"; if the pupil did not appear to shrink at all, write "None". Approximately 1 second is normal.

Record both the systolic and diastolic blood pressure (in even numbers), and the suspect's body temperature, in the spaces provided. Also indicate whether the suspect's muscle tone appeared to be rigid, flaccid or normal.

| BLOOD PRESSURE        |          | J         | ТЕМР    | 0 |
|-----------------------|----------|-----------|---------|---|
| Muscle Tone: Comments | Normal & | □ Flaccid | □ Rigid |   |

You will examine the suspect's arms and hands for punctures or "track marks", and you will sketch anything noteworthy that you find. Draw lines on the arm and hand pictures to indicate the locations and lengths of scars, and draw x-marks to



depict puncture sites. Always describe the condition of puncture sites (e.g., "red dots, oozing fluid"). It is always good practice, and it is standard operating procedure for many departments, to take photographs of a suspect's fresh puncture sitess. If photos have been taken, indicate on the sketch which areas were photographed. If the examination discloses no punctures, scars or anything else worthy of note, draw a diagonal line across the sketches of arms and hands and write "No Visible Marks" on that section of the form.

On the fourth line from the bottom, record the suspect's responses to the final three questions. Remember that most, if not all, courts generally hold that a suspect must be advised of constitutional rights before these kinds of questions should be asked.

|  | <del></del>  | r                                     |
|--|--------------|---------------------------------------|
| What Medicine or Drug Have You Been Using? How Much? | Time of use? | Where Were the Drugs Used? (Location) |
|  |              | į                                     |

The last three lines on the form are used to record information about basic time parameters of concern to the evaluation, and to record additional pertinent information about you, the DRE who conducted the evaluation, and your opinion of the evaluation. If another DRE supervised your evaluation, their name should be written in the "Reviewed By" block on the lower right corner of the form. That is especially important during your certification training phase.

| Date/Time of Arrest  Member Signature (Include Rank) |                         | Time DRE Notified        |                              | Eva          | al Start Time              | Time Completed                |  |
|--|-------------------------|--------------------------|------------------------------|--------------|----------------------------|-------------------------------|--|
|  |                         |                          | ID No.                       | Reviewed By: |                            |                               |  |
| Opinion of Evaluator:                                | □ Rule Out<br>□ Medical | □ Alcohol<br>□ Depressar | □ Stimulan<br>at □ Hallucino | -            | □ PCP<br>□ Narcotic Analge | □ Inhalant<br>esic □ Cannabis |  |

The reverse side of the form should be used for the narrative Drug Evaluation Report, and continuation sheets should be attached, as appropriate. Guidelines for organizing the narrative report are given below.

## Guidelines for writing the narrative report

The narrative portion of a standard DRE report has thirteen segments.

#### a. The Location

State where the drug recognition evaluation was conducted.

Example:

Evaluation of Subject Richardson was conducted in the DRE room, Jail Division, Parker Center.

#### b. Witnesses

Give names, agency affiliations and other identifiers of any persons who witnessed all or portions of the evaluation. State the person who served as the evaluator and recorder with complete agency names.

Example:

Derald Gautier, Denver, Colorado Police Department served as a witness for the entire evaluation. Sgt. Tom Page, Los Angeles, California Police Department served as the evaluator. Officer Jim Brown, Los Angeles, California Police Department, served as the recorder.

#### c. The Breath Alcohol Test

Indicate if the test was taken, and state who administered the test. Give the test results, the time of the test and state the serial number or other identifier of the instrument on which the test was taken.

## d. The Notification and Interview of the Arresting Officer

Indicate when you were first notified of the request for a drug evaluation, and summarize the information you were given at that time. State where you were and what you were doing when the request was received. Include a summary of your interview of the arresting officer.

Example:

On 3/17/xx, at 2145 hours, this officer ... was notified by Officer John ... that he had arrested one Richardson. ... Officer Page requested that I conduct a drug influence examination ...

Officer John informed me that Subject Richardson's vehicle was observed moving ... at approximately 15 mph. Vehicle maintained speed as it passed stop sign ... Officer John activated lights/siren. Subject vehicle responded slowly ... Subject Richardson appeared to be asleep ...

### e. Initial Observation of the Suspect

Document in detail your personal initial observations of the suspect. Describe where and when you first saw the suspect. Highlight any noteworthy or unusual actions, appearances, etc. that you observed. Summarize the findings of your Preliminary Examination of the suspect.

#### Example:

I first saw Richardson at 2200 hours ... He wore a 3-pc business suit ... Subject walked slowly, staggered ... swayed constantly ... head nodded forward repeatedly ... (etc.)

#### f. Medical Problems and Treatment

Describe your own observations concerning possible injuries or illness that the suspect may be suffering. Document suspect's statements or claims concerning illness or injury. Document any medical attention or treatment that the suspect received while in your care.

#### g. Psychophysical Indicators of Impairment

Give a brief but clear, complete and accurate description of the suspect's performance of the Romberg, Walk and Turn, One Leg Stand and Finger to Nose tests.

#### Example:

Romberg Balance: Forward sway up to 2 inches; side to side sway up to 3 inches. Actual elapsed time of 52 seconds when estimating 30 seconds.

#### h. Clinical Indicators of Impairment

Give a brief but clear, complete and accurate description of your examinations of the suspect's eyes, vital signs and any tremors observed.

#### Example:

Horizontal gaze nystagmus: Lack of smooth pursuit (both eyes); distinct and sustained nystagmus at maximum deviation (right eye only). Total of 3 clues of nystagmus. Eyelid tremors during Romberg.

#### i. Signs of Ingestion

Document the results of your examinations of the suspect's oral and nasal cavities, search for injection marks, etc. Describe any odors detected on the suspect's breath, hands, clothing, etc. Describe any physical debris of drugs or drug paraphernalia found on the suspect's person.

#### Example:

Left arm: Three recent puncture wounds (red dots, oozing fluid). One-inch "track mark" scar. (Photo attached.)

#### j. Subject's Statements

Document the subject's statements, both in response to your questions and spontaneous utterances. Use verbatim quotes whenever possible. Document your Miranda admonition to the suspect and his or her waiver.

#### Example:

Subject Richardson repeatedly denied using drugs. At one point....he responded "Do I look like I do Dope?" Subsequently,....he responded "Go have a heart attack".

#### k. The DRE's Opinion

State the category or combination of categories of drugs that you believe is/are affecting the suspect. State your opinion concerning the suspect's ability to operate a vehicle safely, if vehicle operation is relevant to this case.

#### Example:

In the opinion of this officer, Subject Richardson is under the influence of a Narcotic Analgesic, and is unable to operate a vehicle safely.

#### l. The Toxicologic Sample

State the type of sample (blood, urine, etc.) taken from the suspect. Give the name, title, agency affiliation, etc. of the person who drew the sample or observed its collection. State where the sample was taken and to whom it was given. If the results of the toxicologic analysis are known at the time the report is written, state those results. If the suspect refused to submit a sample, state that fact in the report.

#### m. Miscellaneous

Include any other information that might be relevant.

Example:

Based on the observations of Subject Richardson, this officer infers that the subject is right handed. This would be consistent with hypodermic injection into his left arm.

The remaining pages of this section of the Manual provide a complete sample DRE report, on Subject Richardson.

Drug Influence Evaluation Evaluator Jim Brown Rolling Log No. 0018 XX-05 LAPD Recorder/Witness **≅** None O Property □ Fatal 🛮 İnjury DERLALD GAUTIER, DPD Arrestee's Name (Last, First, MI) Arresting Officer (Name, ID No.) DOB m #3691 RICHARDSON, JOHN M CURK JOHN 04/04/60 W. LAPD Breath Results: 00 @ Refused Date Examined/Time/Location Chemical Test DARKER COUTER **♯** Urine Instrument # FP 6136 O Refused 3/31/XX 9:30P. JAIL DIVISION Miranda Warning Given: 🗷 Yes 🗆 No What have you eaten today? When? Have you been drinking? Time of last drink? How much? @5p. BY: OFFICER CLARK JOHN NOTHING " BURGER/FRIES NOPE Time now? When did you last sleep? How long? Are you sick or injured? Are you diabetic or epileptic? LAST NIGHT @ 4 HAS DYes KNo Are you under the care of Do you take insulin? ☐ Yes DKNo Do you have any physical defects? I Yes No a doctor or dentist? U Yes 5000 Coordination UDLY POOR COULD BALLEY STAND Are you taking any medication or drugs? □ Yes XNo Attitude COOPERATIVE / ALITTLE WITHDRAWN PALE 🗆 Reddened Conjunctiva Tracking: Sneech □ Normal > Bloodshot □ Watery ANone DLEye OREye ÆEqual □ Unequal Lów, Show, RASPY Pupil Size: 🛪 Equal O Unequal (explain) Able to follow stimulus: Yes a No Eyelids: Corrective Lens: ♥ None □ Glasses □ Contacts, if so □ Hard □ Soft O Normal # Droopy Left Eye Right Eye Vertical Nystagmus? @ Yes @ No Pulse & Time 1. 60 Lack of Smooth Pursuit YE3 Convergence YE'S Right Eye 530 Max. Deviation NO N٥ 4-07/ 3.<u>58</u> 10. NO NB Angle of Onset Walk and Turn Test RAIS ED ARMS ALMOST Cannot Keep Balance Romberg Balance Starts Too Soon Ápprox. Approx. R Sways While Balancing 2" Nine 1" Nine Stops Walking CONTINUOUSLY RAISTO

Z Uses Arms to Balance

AZMS Misses Heel-Toe 1/2 Steps Off Line □ Hopping Raises Arms 11111 TROPPED Wats Foot Down Actual Steps Taken FORWARD Cannot Do Test (Explain) Type of Footwear Describe Turn TENNIS SHOES M/A Estimated At 30 Sec. PIVOTED NEARLY FELL UNTED Room Light Direct Pupil Size Darkness Nasal Area ○ Right △ Left CLEMA Left Eye Oral Cavity CLETAR Draw lines from spot touched 2.0 2.0 20 Right Eye ZO 2,0 DRY LIPS 2.0 Reaction To Light LITTLE GR Hippus Rebound Dilation G Yes p(No ⊈Yes y⊈No NONE VISIBLE MARKS  $\bigcirc$ 3 FRES. PUNCTURE (4)WorkINDS SWITCHED HANDS #54~0#6 тепр 97.8 Blood Pressure\_\_\_\_ 78 TRACK Muscle Tone: □ Normal | XFlaccid □ Rigid Attach Photos Of Fresh Puncture Marks Meks FELT COOL TO Where Were The Drugs Used? (Location) What Medicine or Drug Have You Been Using? Time of Use? "I DON'T DO DRUGS Eval Start Time 9:30P Time Completed Pime DRE Notified 10:148 Reviewed By: Member Signature (Include Rank) Lin Brown <sup>ID No.</sup>4731 thRule Out 🗆 Alcohol □ Stimulant a PCP O Inhalant Opinion of Evaluator: ♠ Narcotic Analgesic □ Cannabis □ Medical □ Depressant □ Hallucinogen

#### DRUG INFLUENCE EVALUATION NARRATIVE

- 1. LOCATION: Evaluation was conducted in the DRE room at Jail Division Parker Center.
- 2. WITNESSES: Evaluation was recorded by Sgt. Derald Gautier, DPD and witnessed by Officer Clark John, LAPD
- 3. BREATH ALCOHOL TEST: Officer Clark John obtained an 0.00 BrAC reading from the defendant at 9:25P.
- 4. THE NOTIFICATION AND INTERVIEW OF THE ARRESTING OFFICER: At approximately 9:30P Officer John requested that writer conduct a DRE evaluation on defendant John M. Richardson (DOB 09/06/60): Richardson had been arrested by Officer John for DUI. Impairment was not consistent with the 0.00 BrAC obtained from the defendant. Officer John also stated he stopped the defendant after observing him commit numerous traffic violations. Officer John stated that Richardson appeared sleepy, "on the nod," and that his voice was low in volume, raspy in tone and slow in tempo. The defendant failed to perform the psychomotor tasks of the SFSTs as demonstrated.
- 5. INITIAL OBSERVATION OF SUSPECT: Writer first observed Richardson in the DRE room at approximately 9:35P. Defendant walked very slowly, staggered and stumbled without falling. Richardson swayed constantly while standing and having the handcuffs removed. He responded to all questions in a low, slow, raspy, voice. His eyelids were droopy, and his pupils appeared constricted. The first pulse was 60 BPM.
- MEDICAL PROBLEMS AND TREATMENT: Suspect claimed no illness or injury. No evidence of injury or illness observed.
- 7. PSYCHOPHYSICAL: Richardson exhibited impairment throughout all portions of the psychophysical exams. Romberg: He exhibited a 2" sway front to back and a 3" sway side to side. His head repeatedly dropped forward throughout the test. Had a slow internal clock; estimated 52 seconds as 30 seconds. Walk and Turn: He lost balance during the instruction stage, missed heel to toe 3 times during the first nine steps and 3 times during the second nine steps. Turned incorrectly, pivoting and nearly fell. Defendant raised his arms almost continuously throughout the test. One Leg Stand: Richardson counted very slowly throughout the test, 1000-12 in 30 seconds while standing on his left foot and 1000-15 in 30 seconds while standing on his right foot. He put is foot down 3 times while standing on his left foot and 2 times while standing on his right foot. Additionally, he swayed while trying to balance and used his arms almost continuously to balance. Finger to Nose: Richardson responded to commands very slowly, used the wrong hands on #5 and #6. He did not touch the tip of his nose on any of the six attempts.

- 8. CLINICAL INDICATORS: EYES: Lack of smooth pursuit was observed in both eyes. No additional Horizontal Gaze or Vertical Gaze Nystagmus clues were observed. Lack of Convergence was observed. Defendant's pupils were constricted in all three light conditions, little or no visible reaction to light and the eyelids were droopy. VITAL SIGNS: Richardson's last two pulse readings (58 and 58 bpm), were below the normal range. His systolic blood pressure reading (114/78) was also below the normal range.
- 9. SIGNS OF INGESTION: Three fresh puncture wounds were found on the back of the Defendant's left forearm. Numerous scar lines (track marks) were also observed on the left forearm. Muscle tone was flaccid and Richardson's arms felt cool to the touch.
- 10. SUSPECT'S STATEMENTS: Richardson denied any drug usage. He stated he was right-handed and the puncture wounds on back of his left forearm were from thorns scratches he received while gardening.
- 11. DRE'S OPINION: It is my opinion that Richardson is under the influence of a Narcotic Analgesic and is unable to operate a vehicle safely.
- 12. TOXICOLOGICAL SAMPLE: A urine sample was obtained from Richardson at 10:30P, witnessed by writer and Officer John. Sealed sample was delivered to the Evidence Property Room, to be forwarded to the Forensic Laboratory for analysis.
- 13. MISCELLANEOUS: Three syringes with needles were found by Officer John in Richardson's vehicle.

# SESSION XXVII

PRACTICE: TEST ADMINISTRATION

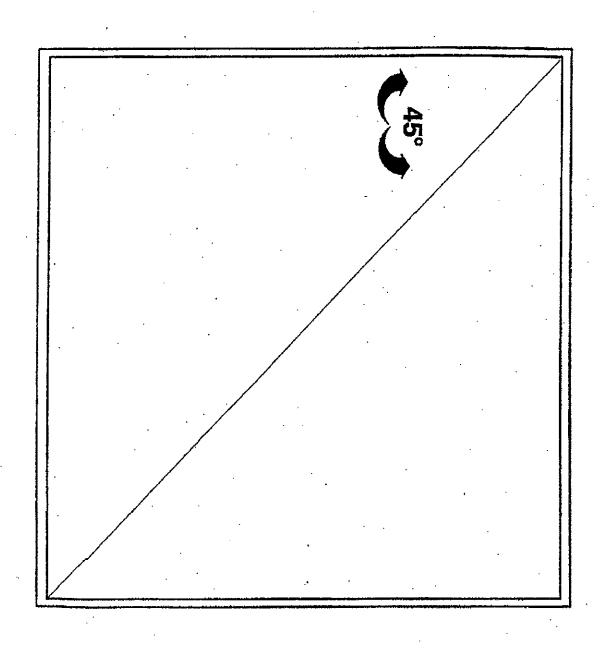
#### SESSION XXVII PRACTICE: TEST ADMINISTRATION

Upon successfully completing this session, the participants will be better able to:

- o Administer selected portions of the battery of examinations that constitute the Drug Evaluation and Classification process.
- o Articulate the examinations procedures.
- o Document the results of the evaluations.

In this session, you will have an opportunity to practice conducting a complete Drug Evaluation and Classification Examination. You will work in a team with one or two fellow students. When you conduct the examinations, your teammate will serve as your test subject. And, you will serve as the subject for a teammate when he or she conducts the examination.

This is an opportunity for you to practice the components of the examination in a controlled setting. Gaining confidence in your ability to conduct the examination now will assist you when you are examining drug impaired subjects who may not be as cooperative as your fellow students. When not serving as a test subject or examiner, pay close attention to the examination conducted by your team members.



# SESSION XXVIII

CASE PREPARATION AND TESTIMONY

# SESSION XXVIII CASE PREPARATION AND TESTIMONY

Upon successfully completing this session, the participants will be able to:

- o Conduct a thorough pre-trial review of all evidence and prepare for testimony.
- o Provide clear, accurate and descriptive direct testimony concerning Drug Evaluation and Classification Examinations.
- o Respond effectively and appropriately to cross-examination in Drug Evaluation and Classification cases.

# A. Guidelines for Case Preparation

Case preparation actually begins with your first contact with the suspect. At that point you begin "collecting" the evidence that you will organize and present at trial.

To begin properly, make sure that you complete each portion of the standard Drug Evaluation and Classification report form. Be especially careful to take accurate notes of your observations of the suspect, and to record their statements accurately. Note and document all relevant information you obtain during your interview of the arresting officer.



When you are notified of the trial date, you should conduct a careful review of all records and reports associated with the case. If you made the arrest, or were summoned to the scene, revisit the scene. During discovery, list and properly document all evidence. Compare your notes with the arresting officer, and clarify or resolve any discrepancies, if possible.

If at all possible, try to arrange a pre-trial conference with the prosecutor. Review with the prosecutor all evidence and all bases for your conclusions. If there are weak points in your case, bring them to the prosecutor's attention. Ask the prosecutor to review the questions he or she intends to ask you on the witness stand. Point out when you do not know the answer to a question. Ask the prosecutor to review questions and tactics that they anticipate the defense attorney may use. Make sure your resume is current. Review your credentials and qualifications with the prosecutor. Offers to assist and educate prosecutors are usually appreciated.

If you cannot have a pre-trial conference, try to identify the main points about the case, and be sure to discuss these with the prosecutor during the few minutes you will have just before the trial. It is important for you to advise a prosecutor that has no experience in DRE, that the case can not be treated like a, "typical DUI case".

# B. Guidelines for Direct Testimony

1. Testifying about your qualifications as a Drug Recognition Expert.

Remember that having been qualified as an expert in the past does not automatically guarantee that <u>this</u> court and judge will deem that you are an expert in <u>this</u> case. You may have to testify in some detail as to your relevant training, education and experience. In fact, it often is to the prosecution's advantage to have you provide such detailed testimony:

The defense may also ask some questions to <u>challenge your credentials</u>. These questions may try to disparage or deprecate the formal training you have had as a DRE. There may also be an attempt to ask questions to "trip you up" on technical or scientific issues, to make it appear that you are less knowledgeable than you should be or claim to be. Stick to absolute honesty. Answer all questions about your training fully and accurately, but don't embellish. Don't try to make the training appear to have been more elaborate or extensive than it really was.

Answer scientific and technical questions if you know the answer. Otherwise, admit that you don't know. Don't try to fake or guess the answers.

The defense may ask questions to <u>challenge your credibility</u>. you may be asked several very similar questions, in the hope that your answers will be inconsistent. You may be asked questions whose purpose is to show that you had already formed your opinion well before you completed the examination of the suspect. And, you may be asked questions that try to suggest that you eliminated portions of the examination, or only gave very cursory attention to some portions. Guard against these kinds of defense challenges by <u>always</u> performing a complete, painstaking examination, exactly as you have been taught. Standardization will help ensure both consistency and credibility.

# E. Test Your Knowledge

The Final Written Examination for this School will take place during Session XXX. This is an opportunity for you to test your knowledge prior to the exam, to verify that you are ready for it. The test that appears on the following pages is similar to the final exam in terms of its content and structure, although it does not (of course) contain the same questions. Take this sample test, and compare your answers with the answer key that appears on the page following the test.

## DRE DEFENSE CROSS EXAMINATION QUESTIONS

The following are representative of questions the defense may use to challenge the Drug Recognition in court. (The Defendant is identified as Miss Alicia Ann Ace.)

# Missing Symptoms/Normals

This line of questions attempts to elicit the fact that the defendant did not have all of the expected signs or symptoms of the drug (s) in question.

Officer, you were taught that bruxism or grinding of the teeth is a sign of CNS Stimulant influence, isn't it? Miss Ace didn't have that sign, did she?

The defense may also focus on those signs or symptoms that were normal, and were therefore, not consistent with the drug in question.

Officer, you learned the normal range of temperature in DRE training, didn't you? And that range is 98.6 plus or minus one degree, isn't it? What was Miss Ace's temperature? (98) 98 is within normal ranges, isn't it? Miss Ace's temperature was normal, wasn't it? CNS Stimulants cause elevated temperature, don't they? Miss Ace's was not elevated, was it?

### Alternative Explanations

The defense elicits alternative explanations for the signs and symptoms of the drug (s) in question. These alternative explanations usually deal with medical conditions, stress, a traffic crash, etc.

Officer, an elevated pulse rate can be caused by things other than drugs, can't it? Excitement may cause it? Stress may cause it? Being involved in a traffic crash is stressful, isn't it? And being involved in a traffic crash may cause elevated pulse, right? Being interviewed in the early morning by three police officers is stressful? And that may also cause the pulse to be elevated, can't it?

### Defendant's Normals

The defense attempts to emphasize the fact that nor everyone is so-called normal, that normal is subjective.

Officer, you were taught the normal range for pulse in DRE training, weren't you? And you agree that not all people fall in that normal range, don't you? That there are people with pulse rates above normal that aren't on drugs, right? A person's pulse changes over time, doesn't it? You don't know what Miss Ace's normal pulse is, do you? It could be in the normal range, right? But it could be above or below the normal range - normally for her, isn't that so?

# Doctor Cop

The line of questioning challenges the credibility of the officer's teachers - that they are police officers, rather than medical professionals.

Officer, the teachers in this DRE school weren't doctors, were they? They weren't nurses either? Toxicologists? Pharmacologists? Paramedics? They were police officer, right?

# Just a Cop

This line of questioning challenges the DRE's credentials - that they are "just a cop." This infers that the DRE evaluation is an ersatz medical evaluation that should be undertaken only by a medical professional.

Officer, you're not a doctor, are you? A toxicologist? A pharmacologist? A nurse? A physiologist? You don't have a degree in chemistry, do you? You're a police officer, right?

## The Unknown

By causing the officer to state that they don't know how a sign or symptom is caused, the defense attacks the officer's credibility. This line of questioning challenges the officer's expertise, by implying that a real expert would know these things.

Officer, you don't know how CNS Stimulants dilate the pupil, do you? You don't know how alcohol supposedly causes Nystagmus, do you? You don't know how CNS Stimulants supposedly elevate the heart rate, do you?

# Guessing Game

This tactic attacks the DRE opinion as a subjective guess, a belief, rather than objective. And guesses can be wrong.

Officer, your opinion in a DRE case is subjective, isn't it? It's a belief on your part? You've made these beliefs in DRE cases in the past, haven't you? A sometimes toxicology didn't find the drug you predicted, isn't that so? And, in fact, sometimes, toxicology didn't find any drug, isn't that so? And so, sometimes your opinion is not correct, right? Sometimes, you guess wrong?

Sgt. Tom Page, LAPD and DDA Linda Condron, Santa Clara County

REVIEW OF THE DRE SCHOOL

# SESSION XXIX

CLASSIFYING A SUSPECT (ROLE PLAY)

# SESSION XXIX · CLASSIFYING A SUSPECT (ROLE PLAY)

Upon successfully completing this session, the participants will be able to:

o Compile a complete, clear and accurate report documenting the conduct and results of a drug evaluation and classification examination.

In this session, you will have opportunities to participate in conducting complete drug evaluation and classification examinations of "arrested suspects". Of course, these "suspects" will not actually be under the influence of any drug. However, at various points during the examination they will instruct you to record certain measurements and observations. In this way they will supply you with information simulating a possible drug impaired subject.

When you complete the examination, you will carefully review all of the data you have recorded and decide whether the "suspect" is simulating a person who is:

- (1) under the influence of a drug or drugs, and,
- (2) if so, what category or combination of categories of drugs is causing the simulated "impairment".

A word of caution: it is possible that one or more of these "suspects" will be role playing <u>unimpaired</u> subjects. That is, in some cases, the correct conclusion may be that the "suspect" is not under the influence of any drug. In addition, it highly likely that one or more "suspect" will be simulating a person who is under the influence of a <u>combination</u> of drug categories.

At some point during this practice session an instructor will approach you and notify you that you will have to prepare a complete narrative report on your examination of one of the "suspects". The particular "suspect" who will be the subject of your report could be any of the ones you examine. Therefore, it is very important that you take good, comprehensive and detailed notes on each examination.

You will work in this session as a member of a team with two or three fellow students. You and your team mates should "put your heads together" in reaching your conclusions concerning each "suspect"; that is, discuss the "evidence" you have recorded and reach a joint conclusion. You should divide the report writing work among yourselves in some equitable fashion. And, you should each take at least one turn at conducting the complete examination.

This is a very important session in this course. It is here that your instructors will begin to determine whether you have the skills needed to progress to Certification Training, or whether you need more practice before you are ready to move on.

# DRUG EVALUATION AND CLASSIFICATION PROGRAM

# LOG OF DRUG INFLUENCE EVALUATIONS

| ರ<br>ಭಾರ<br>:           |                         | TOXICOLOGIC WITNESSES |  |  |  |                |  |
|-------------------------|-------------------------|-----------------------|--|--|--|----------------|--|
|                         |                         |                       |  |  |  |                |  |
|                         |                         | OPINION<br>OF DRE     |  |  |  |                |  |
|                         |                         | DATE                  |  |  |  | <del>,</del> . |  |
|                         |                         | BOOKING<br>NUMBER     |  |  |  |                |  |
| on Expert               | te Number               | SUSPECT'S<br>NAME     |  |  |  |                |  |
| Drug Recognition Expert | IACP Certificate Number | CONTROL               |  |  |  | ·              |  |

# DRUG EVALUATION AND CLASSIFICATION PROGRAM

# LOG OF DRUG INFLUENCE EVALUATIONS

| •                        |                         | WITNESSES              |   | , |  |  |  |
|--------------------------|-------------------------|------------------------|---|---|--|--|--|
| page:                    |                         | TOXICOLOGIC<br>RESULTS |   |   |  |  |  |
|                          |                         | OPINION<br>OF DRE      |   |   |  |  |  |
|                          |                         | DATE                   |   |   |  |  |  |
| •                        |                         | BOOKING                |   |   |  |  |  |
| ion Expert               | te Number               | SUSPECTS               |   |   |  |  |  |
| Drug Recognition Expert_ | IACP Certificate Number | CONTROL                | , |   |  |  |  |

# DRUG EVALUATION AND CLASSIFICATION PROGRAM

# LOG OF DRUG INFLUENCE EVALUATIONS

|                         |                         |                     |   | _, | <del></del> |   | <br> |  |
|-------------------------|-------------------------|---------------------|---|----|-------------|---|------|--|
| •                       |                         | WITNESSES/          |   |    |             |   |      |  |
|                         | page:                   | TOXICOLOGIC RESULTS |   |    |             |   |      |  |
|                         |                         | OPINION<br>OF DRE   |   |    |             |   |      |  |
| -                       |                         | DATE                |   |    |             | , |      |  |
|                         |                         | BOOKING             | · | ,  |             |   |      |  |
| n Konawf                | Number                  | SUSPECT'S<br>NAME   |   |    |             |   |      |  |
| Drug Recognition Exnant | IACP Certificate Number | CONTROL             |   |    |             |   |      |  |

# SESSION XXX

TRANSITION TO CERTIFICATION TRAINING

# SESSION XXX TRANSITION TO CERTIFICATION TRAINING

During this session, the participants will:

- O Demonstrate his or her mastery of the knowledge and skills the course was intended to help him or her develop.
- o Summarize the key topics covered.
- o Offer comments and suggestions for improving the course.
- o Receive his or her assignments for field Certification Training.

This session completes the second phase, of your training as a Candidate Drug Recognition Expert. Among other things, three important events will take place during this session.

- (1) You will take a written, multiple choice test, designed to measure your knowledge of drugs, Drug Recognition Examination procedures, and related facts. This knowledge test is one indicator of whether you are ready for Certification Training. You must pass this examination with a score of 80% or better.
- (2) You will take a proficiency examination, in which you will demonstrate your skills in conducting the Drug Evaluation and Classification Examination. This skill test is the other indicator of your readiness for the next phase.
- (3) You will complete a written -- but anonymous -- critique form, which gives you a chance to express your opinions about this course and the instructors. This information is very important. It will help your department improve the quality of the training, and to maintain the quality at the highest possible level.

# A. Preparing For The Knowledge Examination

The following are not the questions that will appear on the knowledge examination. But some of them are quite similar to the examination questions, and all of them address subject matter that will be covered on the test.

If you can answer these questions correctly, you will have no problem in scoring very well on the knowledge examination.

Answers appear on the pages following the questions.

# B. Preparing For The Proficiency Examination

On the three pages that immediately follow, you will find a copy of the <u>Proficiency Examination Checklist</u> that your instructors will use to assess your skills in conducting the Drug Evaluation and Classification Procedures. Review the Checklist carefully. It will give you a good idea of what factors will be considered in your examination, i.e., the errors of omission or commission that you need to avoid.

<u>Practice</u> conducting the DRE procedures before submitting yourself to this proficiency examination. Make sure you can administer the procedures flawlessly. It would be a good idea to conduct some after class hours practice with fellow students, so that you can coach each other and help each other progress to Certification Training.

# PROFICIENCY EXAMINATION CHECKLIST (For Use During Certification Training)

| ate _ | Examiner  |
|-------|---|
| Pr    | eliminary Examination   |
| 1.    | Did the student ask all preliminary examination questions?            |
|       | yesno   |
| (If   | No: What questions were deleted?                                      |
| 2.    | Did the student properly estimate pupil size?                         |
|       | yesno   |
| 3.    | Did the student properly assess the eyes' tracking ability?           |
|       | yesno   |
| 4.    | Did the student properly measure pulse rate?                          |
| •     | yesno   |
| Ey    | e Examinations  |
| 1.    | Did the student properly administer the Horizontal Gaze Nystagmus to  |
|       | yesno   |
| (If 1 | 10, explain deficiencies  |
|       |   |
| 2.    | Did the student properly administer the Vertical Gaze Nystagmus test? |
|       | yesno   |
| (If r | o, explain deficiencies   |
|       | <u> </u>  |

|              | yesno   |
|--------------|---|
| (If          | no, explain deficiencies  |
|              |   |
| . <u>P</u> s | <u>ychophysical Tests</u>   |
| 1.           | Did the student properly administer the Romberg Balance test?       |
| .£. <b>*</b> | yesno   |
| <i>(</i> T   | f no, explain deficiencies  |
| /.           |   |
|              |   |
| 2            | . Did the student properly administer the Walk and Turn test?       |
|              | yesno   |
| . ,          | If no, explain deficiencies   |
|              |   |
| (            |   |
| -            |   |
| -            |   |
|              | 3. Did the student properly administer the One Leg Stand test?yesno |
|              | 3. Did the student properly administer the One Leg Stand test?      |
| _<br>;       | 3. Did the student properly administer the One Leg Stand test?      |
| ;            | B. Did the student properly administer the One Leg Stand test?      |

| V. <u>Vital Signs Examinations</u> |             |  |  |  |  |  |  |
|------------------------------------|-------------|--|--|--|--|--|--|
|                                    | 1.          | Did the student properly measure blood pressure?                                 |  |  |  |  |  |
|                                    |             | yesno  |  |  |  |  |  |
|                                    | (If         | no, explain deficiencies   |  |  |  |  |  |
|                                    | <del></del> |  |  |  |  |  |  |
|                                    | 2.          | Did the student properly measure temperature?                                    |  |  |  |  |  |
|                                    |             | yesno  |  |  |  |  |  |
|                                    | (If         | no, explain deficiencies   |  |  |  |  |  |
|                                    |             |  |  |  |  |  |  |
|                                    | 3.          | Did the student properly measure pulse?  |  |  |  |  |  |
|                                    | Λt.         | yesno  |  |  |  |  |  |
|                                    | (±1.        | no, explain deficiencies   |  |  |  |  |  |
| IV.                                | Dar         | rk Room Examinations   |  |  |  |  |  |
| -                                  | 1.          | Did the student properly control the pen light for the two checks of pupil size? |  |  |  |  |  |
|                                    |             | yesno  |  |  |  |  |  |
|                                    | (If r       | 10, explain deficiencies   |  |  |  |  |  |
|                                    |             |  |  |  |  |  |  |
|                                    | 2.          | Did the student accurately estimate pupil size?                                  |  |  |  |  |  |
|                                    |             | yesno  |  |  |  |  |  |
|                                    | 3.          | Did the student properly check the nasal area?                                   |  |  |  |  |  |
|                                    |             | yesno  |  |  |  |  |  |

| 4. Did the student properly check the oral cavity?                          |             |
|---|-------------|
| yesno   |             |
| Examinations of Muscle Tone   |             |
| 1. Did the student adequately inspect for muscle tone?                      |             |
| yesno   |             |
| (If no, explain deficiencies  |             |
|   | <del></del> |
| Examinations of Injection Sites and Third Pulse                             |             |
| <ol> <li>Did the student adequately inspect for injection sites?</li> </ol> |             |
| yesno   |             |
| (If no, explain deficiencies  |             |
| 2. Did the student properly measure pulse?                                  | ·           |
| (If no, explain deficiencies  | <u> </u>    |
| /II. Evaluator's Opinion of Student's Proficiency                           |             |
| (Offer appropriate, specific comments concerning the student's progress)    |             |
|   |             |
|   |             |
|   |             |
|   |             |

# C. The Anonymous Written Critique

The <u>Student's Critique Form</u> appears on the following pages. You will have time, during the final session of the course, to complete this form and offer any comments that you think are appropriate. It will be especially helpful to your department to hear your suggestions for improving this training.

Please look over the critique form prior to the final session, to start organizing your thoughts and feelings about the instruction you have received.

# D. Maintaining The Log of Drug Influence Evaluations

Beginning with your first night of Certification Training, and continuing throughout your career as a DRE, you will maintain a log of all persons you examine for possible drug impairment. The log is your personal record of your work as a DRE, and it will have a major impact on three things that should be of cable importance to you:

- (1) Whether or not your instructors can recommend you for your initial certification as a DRE.
- (2) Whether or not you qualify for re-certification, when your initial certification expires.
- (8) Whether or not the trial judge in a particular drug impairment case qualifies you as an expert, and allows you to render your opinion as evidence.

Under the International Program Standards established by NHTSA and IACP, your instructors cannot endorse you for certification by IACP unless your Log of Drug Influence Evaluations is up-to-date, complete and accurate. The next-to-läst line on the Certification Progress Log that you received at the beginning of the PRE-School, and that you handed back in at the start of this School, is titled "Rolling" Log Approved. ("Rolling" Log is the informal name of the Log of Drug Influence Evaluations.) If a valid instructor's signature does not appear on that line, IACP cannot grant you a certificate. Once you do receive a certificate, it usually will be valid for two years. At that time, to qualify for re-certification, you must submit a copy of the entries in your "Rolling" Log since you were certified, as proof that you have maintained your proficiency. And, each time you go to court as a DRE, you must bring your "Rolling" Log along, to help establish your credentials as an expert. Remember that your state may have more stringent requirements.

What is the "Rolling" Log? Five copies of it appear on the final pages of this manual. Remove one of those copies now, so that you can refer to it as you read the instructions for entering information on it.

At the top of the Log, there is a space in which you will print your name ("Drug Recognition Expert"); another space for the page number (obviously, the first page will be #1, the second #2, and so on; as you continue your career as a DRE, the page number will grow very large); and, a third space in which to print your IACP Certificate Number. Until you have completed your certification training, you will print the word "STUDENT" in that space.

Each subsequent line of the log corresponds to a suspect examination in which you participated. In the "Control Number" box, you will print the number that <u>you</u> assign to the examination; i.e., if this is the seventh examination in which you participated in 1993, the control number would be 93-7. If you were the actual examining DRE for this particular case, you need not print anything other than the control number in that box. But if you served only as the recorder, you must print "RECORDER" in the box, immediately below the control number. Likewise, if you were participating only as a witness, you will print "WITNESS" in the box.

In the box to the right of the control number, you will print the suspect's full name (last, first, middle initial); further to the right, enter the booking number. The booking number is whatever control number the responsible law enforcement agency assigned to track this particular arrestee. In some instances, there may be no booking number. For example, you may have an opportunity to examine a person who is receiving drugs in a clinical setting, and no arrest is involved. Or, the person you are examining might be someone already incarcerated in the jail who agrees to submit to the examination with the understanding that its outcome will not affect their particular case; in that instance, the booking number would not be relevant. In any case where there is no relevant booking number, simply print "N/A" in the box.

In the next box, print the date on which the examination began; in other words, an examination that starts one minute before midnight on March 17th is recorded on that date, not on the 18th, despite the fact that almost all of the work took place on the later day.

The next box, of course, is very important. Record your opinion in complete detail. If you conclude that the suspect is not impaired, that is what you will record. If you conclude that they are under the influence of alcohol only, that is what you must record. If you believe the suspect is suffering from an injury or illness, print "Medical Rule Out" in the box. Otherwise, print the category or combination of categories of drugs that you believe is causing the impairment. If the suspect has a positive BAC, don't forget to include "alcohol" as one of those.

In the "Toxicologic Results" box, you will print the outcome of all chemical tests performed on the suspect. Obviously, days or weeks will usually pass by before you have the results of blood or urine tests, so you will routinely have to "update" your log. Don't forget to include the BAC obtained from the breath test in this space. And, if the suspect refused to submit to the blood or urine test, indicate that.

In the final box, print the names of persons who witnessed the examination, and include any other appropriate comments. Use the reverse side of the page, or add continuation sheets, if longer comments are appropriate.

Experienced DREs usually maintain two copies of their "Rolling" Logs, to ensure preservation of this most important record.

# E. Certification Requirements

At a minimum you will need to conduct 12 DRE evaluations with an instructor. You need to be the evaluator on at least 6 of these evaluations, and at least 75% of your opinions must be collaborated by toxicological results.

If no instructor is available you may still be able to complete an evaluation. Check with your agency to determine what polices pertain to this situation. The ultimate goal of this program is to remove the drugged driver from the roadway.

Remember, you must have a DRE Instructor present when you conduct an evaluation to receive credit for certification.

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| Course | Location |

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# DRE SCHOOL STUDENT'S CRITIQUE FORM

# 1. Rating The Various Segments Of The School

On a scale from 1 (="low") to 5 (="high"), please indicate how important each major topic or activity of this school was for you personally.

| Drugs In Society and In Vehicle Operation                             |              |
|---|--------------|
| Development and Effectiveness of the DEC Program                      | · ·          |
| Overview of the Drug Recognition Expert Procedures                    |              |
| Physician's Desk Reference  | <u> </u>     |
| Eye Examinations: Explanation and Demonstrations by Instructors       |              |
| Eye Examinations: Hands-on Practice by Students                       |              |
| Vital Signs: Explanations and Demonstrations by Instructors           |              |
| Vital Signs: Hands-on Practice by Students                            |              |
| Physiology and Drugs  |              |
| The Alcohol Workshop  | <del> </del> |
| The "Practice: Test Interpretation" Sessions                          |              |
| The Sessions on the Individual Drug Categories                        | ·            |
| Overview of Signs and Symptoms  |              |
| Drug Combinations   |              |
| Resume Preparation and Maintenance                                    |              |
| Preparing the Narrative Report  |              |
| Case Preparation and Testimony  |              |
| The Mid-Course Review Session   |              |
| The Role Play Session (Instructors "simulating" drug impaired subject | ts)          |
| The Quizzes   |              |

| If yo      | ou <u>absolutely</u>               | had to cut four hours out of this sch               | nool, what topics or sessions           |
|------------|------------------------------------|---|---|
| wou        | dd you reduce                      | e or eliminate?                                     |   |
| -          |                                    |   | ·                                       |
| If yo      | ou could add<br>itional time l     | four hours to the School, how would<br>be spent?    | you recommend that the                  |
|            |                                    |   |   |
| 3.         | Specific Fe                        | atures Of The School                                |   |
| Ple<br>eac | ase circle the<br>h of the follov  | appropriate word to indicate your awing statements. | agreement or disagreement with          |
| 1.         | The DRE Sc                         | hool is at least one day too long.                  | •                                       |
|            | Agree                              | Disagree  | Not Sure                                |
| 2.         | We spent to                        | o much time in hands-on practice.                   |   |
|            | Agree                              | Disagree  | Not Sure                                |
| 3.         | Now that I'v                       | ve had the DRE School, I believe the                | at the <u>PRE</u> -School really wasn't |
|            | Agree                              | Disagree  | Not Sure                                |
| 4.         | Some of the been.                  | e instructors didn't seem to be as we               | ll prepared as they should have         |
|            | Agree                              | Disagree  | Not Sure                                |
| 5.         | I do <u>not</u> fee<br>accurately. | l confident about my ability to estin               | nate nystagmus onset angle              |
|            | Agree                              | Disagree  | Not Sure                                |
| 6.         | This Schoo                         | l was much harder than I thought i                  | t would be.                             |
|            | Agree                              | Disagree  | Not Sure                                |

| 7.  | We should have spent more time in hands-on practice. |   |                       |  |  |
|-----|--|---|-----------------------|--|--|
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 8.  | The instructors seemed across very well.             | d to know their material, but some          | of them didn't get it |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 9.  | We spent too much tim                                | e on the details of each drug categ         | ory.                  |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 10. | I am not confident that                              | t I can measure blood pressure accu         | rately.               |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 11. | I would have to say tha                              | at the final examination was hard,          | but fair.             |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 12. | Some of the instructors                              | "threw the bull" a bit too much.            | ·                     |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 13. | Now that I've had the I<br>PRE-School is very imp    | DRE School, I am more convinced to contant. | han ever that the     |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 14. | I am still very confused                             | l about drug combinations and thei          | r effects.            |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 15. | I am not confident that                              | I can estimate pupil size accuratel         | y                     |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |
| 16. | I would have to say tha                              | t this School wasn't quite as hard a        | as I thought it would |  |  |
|     | Agree  | Disagree                                    | Not Sure              |  |  |

| There were too ma  | ny durzes in sino sons-                   |                                |  |  |  |
|--|---|--------------------------------|--|--|--|
| Agree  | Disagree                                  | Not Sure                       |  |  |  |
| . The final examina  | tion was much harder than it sl           | nould have been.               |  |  |  |
| Agree  | Disagree                                  | Not Sure                       |  |  |  |
| . We did <u>not</u> receive<br>the various drug o  | e enough information about the ategories. | effects, signs and symptoms of |  |  |  |
| Agree  | Disagree                                  | Not Sure                       |  |  |  |
| ). I am confident the  | at I will succeed in the Certifica        | tion Stage of my training.     |  |  |  |
| Agree  | Disagree                                  | Not Sure                       |  |  |  |
| 1. The DRE School  | is at least one day too short.            | •                              |  |  |  |
| A cruoo  | Disagree                                  | Not Sure                       |  |  |  |
| Agree . Rating of Instr  |   | indicate your overall          |  |  |  |
| . Rating of Instr  | 'poor") to 5 (="excellent"), please       |                                |  |  |  |
| . Rating of Instr  | 'poor") to 5 (="excellent"), please       | e indicate your overall Rating |  |  |  |
| . Rating of Instr<br>On a scale from 1 (='<br>assessment of each i                             | 'poor") to 5 (="excellent"), please       |                                |  |  |  |
| . Rating of Instr<br>On a scale from 1 (='<br>assessment of each i                             | 'poor") to 5 (="excellent"), please       | Rating                         |  |  |  |
| . Rating of Instr<br>On a scale from 1 (='<br>assessment of each i<br>instructor<br>Instructor | 'poor") to 5 (="excellent"), please       | Rating Rating                  |  |  |  |
| . Rating of Instr<br>On a scale from 1 (='<br>assessment of each instructor                    | 'poor") to 5 (="excellent"), please       | Rating  Rating  Rating  Rating |  |  |  |
| . Rating of Instr<br>On a scale from 1 (='<br>assessment of each i<br>instructor<br>Instructor | 'poor") to 5 (="excellent"), please       | Rating  Rating  Rating         |  |  |  |

|                       |                                       |   |             | <u> </u>              |             |
|-----------------------|---------------------------------------|---|-------------|-----------------------|-------------|
| Instructor            |                                       |   |             | Rating                |             |
| Instructor            |                                       |   | <del></del> | Rating                | <del></del> |
|                       |                                       |   | ·           |                       |             |
| Instructor            |                                       | , |             | Rating                |             |
| <del>-</del>          | •                                     | ·                                       | ·           |                       |             |
| Instructor            |                                       | ·<br>-                                  |             | Rating                |             |
| Instructor            |                                       |   | •           | Rating                |             |
| Instructor            | <del></del>                           |   | · · ·       | Rating                |             |
| Instructor            | · · · · · · · · · · · · · · · · · · · |   | •           | Rating                | ·-·         |
| Instructor            |                                       |   |             | Rating                | •           |
| Instructor            |                                       |   |             | Rating                | ·           |
| Instructor            |                                       |   | ·           | Rating                |             |
| Instructor            |                                       | <del></del>                             |             | Rating                | <del></del> |
| Instructor            | · · · · · · · · · · · · · · · · · · · | •                                       | <del></del> | Rating                |             |
| 5. Overa <b>l</b> l R | ating Of The S                        | School                                  | -           |                       |             |
| On a scale from       | n 1 (="poor") to<br>the quality of th | 5 (="excellent")<br>iis School;         | , please i  | indicate your overall | •           |
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