SESSION I

INTRODUCTION AND OVERVIEW

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

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

During this session, the student will demonstrate their 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 evaluations of suspected drug-impaired subjects. 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 Drug Evaluation and Classification (DEC) training program focuses on a set of examination procedures, or steps that make up the DRE drug influence evaluation. They include the following:

- a breath test to determine blood alcohol concentration (BAC);
- preliminary assessments of the subject's speech, breath, appearance, demeanor, behavior, etc;
- examinations of the subject's eyes (for nystagmus, tracking ability, ability to converge, pupil size and pupil reaction to light);
- psychophysical evaluations of the subject, based on divided attention tests;
- examinations of the subject's vital signs (e.g. blood pressure, pulse rate and temperature);
- 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 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 evaluation procedures; careful demonstrations of these procedures, both "live" and via video; and ample opportunities for the students to practice administering the evaluations. By the completion of this course of instruction, students should be fully proficient in checking vital signs, conducting careful examinations of the 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 the influence of drugs.

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 percent 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 ultimate goal of the Drug Evaluation and Classification (DEC) program, and of this course of instruction, is to "help you prevent crashes, deaths and injuries caused by drug-impaired drivers".

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. There are numerous studies that illustrate these facts. They include:

- Maryland (1986) - 32 percent of crash-injured drivers had evidence of marijuana in their blood.

- University of Tennessee (1988) - 40 percent of crash-involved drivers treated at the University's Trauma Center had drugs other than alcohol in their urine.

- NHTSA (Terhune, Ippolito, Hendricks et al., 1992) - 1,882 operators involved in fatal crashes from 13 locations from eight states were tested for alcohol and 43 other drugs. Alcohol was the most prevalent drug detected in 51.5 percent of the crashes, while other drugs were involved in 17.8 percent of the crashes.

- Washington State (Schwilke, et al 2006) - The results of tests of blood and/or urine from 370 fatally injured drivers revealed that marijuana was the most encountered drug (12 percent), followed by benzodiazepines (5.1 percent), cocaine (4.8 percent) and amphetamines (4.8 percent).

How about people who drive under the influence of alcohol and other drugs that are not involved in crashes? A 2008 survey (National Survey on Drug Use and Health) revealed that 10.0 million persons admitted driving under the influence of alcohol at least once in the past year. The same survey also revealed that an estimated 20 million Americans, or 8.2 percent of the population aged 12 years or older, were current illicit drug users, and that marijuana was the most commonly used illicit drug.

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 alcohol only from individuals who are under the influence of other drugs, 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 objectives of this course, from the viewpoint of the individual students who enroll in it, are as follows:

- to be able to describe the involvement of drugs in impaired driving incidents.
- to be able to name the seven broad categories of drugs, and recognize their effects.
- to be able to describe, and administer properly, the psychophysical and physiological examinations included in the drug influence evaluation.
- to be able to document the results of DRE evaluations.
- to interpret the results of these evaluations accurately.
- to be able to prepare a narrative Drug Influence Report based on the results of the complete evaluation.
- to be able to testify properly in typical drug evaluation cases.
- to develop and maintain an up-to-date, relevant Curriculum Vitae (CV) 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 of the major content topics will be:

- the incidence of drugs in society and in vehicle operation,
- the development and effectiveness of the DEC program,
- the DRE procedures,
- eye examinations,
- physiology and drugs,
- vital signs examination,
- Physicians Desk Reference and other resources
- interviewing subjects,

- curriculum vitae (C.V.), case preparation and testimony,
- interpreting and documenting the results of the examination.

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

D. Overview of Student Manual

The student manual is be used as a reference and is a summary of material presented. You are required 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

ACCOMMODATION REFLEX

The adjustment of the eyes at various distances. Meaning the pupils will automatically constrict as objects move closer.

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 subject's pupils could be constricted, or dilated, or within the normal range of size.

ARRHYTHMIA
An abnormal heart rhythm.

ARTERY
The strong, elastic blood vessel that carries blood away from the heart.

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
This is the drug category that includes marijuana. Marijuana comes primarily from the leaves of certain species of Cannabis plants that grow readily all over the temperate zones of the earth. Hashish is another drug in this category, and is made from the dried and pressed resin of a marijuana plant. The active ingredient in both Marijuana and Hashish is a chemical called delta-9 tetrahydrocannabinol, usually abbreviated THC.

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 their nose. (See also "Lack of Convergence".)

CRACK/ROCK
Cocaine base, appears as a hard solid form resembling pebbles or small rocks. It produces a very intense, but relatively short duration "high".

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

CYCLIC BEHAVIOR
A manifestation of impairment due to certain drugs, in which the subject 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
One of the seven drug categories. Includes drugs that inhibits pain by cutting off or "disassociating" the brain's perception of pain. PCP and its analogs are considered dissociative anesthetics.

DIVIDED ATTENTION
Concentrating on more than one task at a time. The four psychophysical tests used by DREs require the subject to divide attention.

DOWNSIDE EFFECT
An effect that may occur when the body reacts to the presence of a drug by releasing hormones or neurotransmitters to counteract the effects of the drug consumed.

DRUG
Any substance that, 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 mood disorder. 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 the 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.

HASHISH

A form of cannabis made from the dried and pressed resin of a marijuana plant.

HASH OIL

Sometimes referred to as “marijuana oil” it is a highly concentrated syrup-like oil extracted from marijuana. It is normally produced by soaking marijuana in a container of solvent, such as acetone or alcohol for several hours and after the solvent has evaporated, a thick syrup-like oil is produced with a higher THC content.

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 change in the pupil size of the eyes, as they dilate and constrict observed only in darkness independent of changes in light intensity, accommodation (focusing) or other forms of sensory stimulation. Normally only observed with specialized equipment.

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 body 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 it 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 step 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, oxycodone and percodan), 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 neither 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 semi-conscious state of deep relaxation. Typically induced by impairment due to heroin or other narcotic analgesic. The subject's eyelids droop and chin rests on the chest. Subject 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 by 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 neurotransmitters 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 experts. The PDR provides detailed information on the physical appearance and psychoactive effects of licitly-manufactured drugs.

PHENCYCLIDINE

A contraction of PHENYL CYCLOHEXYL PIPERIDINE, or PCP. Formerly used as a surgical anesthetic, however, it has no current legitimate medical use for humans.

PHENYL CYCLOHEXYL PIPERIDINE (PCP)

Often called “phencyclidine” or “PCP”, it is a specific drug belonging to the Dissociative Anesthetics category.

PHYSIOLOGY

Physiology is the branch of biology dealing with the functions and activities of life or living matter and the physical and chemical phenomena involved.

PILOERECTION

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

POLYDRUG USE

Ingesting drugs from two or more drug categories.

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 subject's impairment.

PSYCHOTOGENIC

Literally "creating psychosis" or "giving birth to insanity". A drug is considered to be psychotogenic if people 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 people who are under the influence of the drug look and act insane <u>while</u> 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.

PUPILLARY LIGHT

The pupils of the eyes will constrict and dilate on changes in lighting.

PUPILLARY UNREST

The continuous, irregular change in the size of the pupils that may be observed under room or steady light conditions.

REBOUND DILATION

A period of pupillary constriction followed by pupillary dilation where the pupil steadily increases in size and does not return to its original constricted size.

RESTING NYSTAGMUS

Jerking of the eyes as they look straight ahead.

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 powder 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 in order 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. In its simplest terms it is a transposition of the senses. For example, seeing a particular sight may cause the user to perceive a sound.

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 involuntary jerking of the eyes (up and down) which occurs as the eyes are held at maximum elevation. The jerking should be distinct and sustained.

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 their 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.