



**INTRODUCTION TO
DRUGS THAT IMPAIR
for Educational
Professionals**

PURPOSE

- To improve your ability to recognize a student who is reasonably suspicion to be to using or are under the influence of a controlled substance, and to take appropriate action.

UPON COMPLETION OF THIS TRAINING, YOU WILL BE ABLE TO:

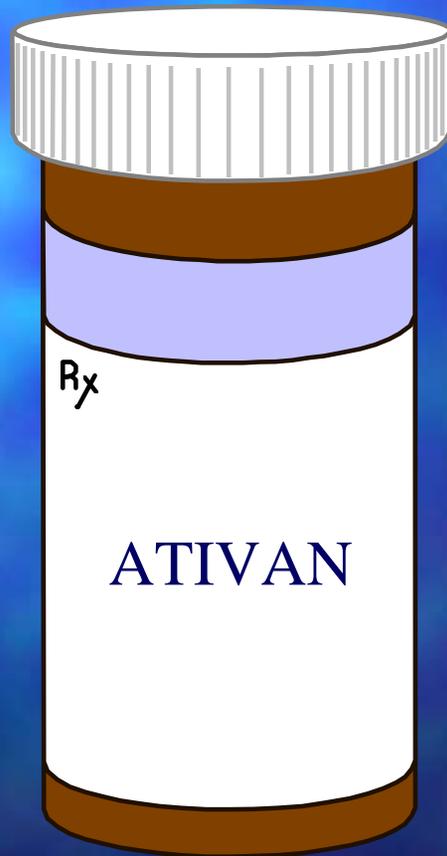
- Define the term “drug” in the context of impairment and/or influence.
- Name the 7 major categories of drugs.

OBJECTIVES (Continued)

- Describe the observable signs associated with the major drug categories.
- Describe appropriate procedures for dealing with drug- impaired or medically-impaired suspects.
- Describe medical conditions and other situations that can produce similar signs.

THIS TRAINING WILL NOT
QUALIFY YOU AS A DRUG
RECOGNITION EXPERT.

What is a "drug"?



Working Definition of "Drug."

- Any chemical substance, natural or artificial, which, when taken into the human body, can impair the person.



CENTRAL NERVOUS SYSTEM DEPRESSANTS



- Alcohol
- Barbiturates
- Valium
- Chloralhydrate

CENTRAL NERVOUS SYSTEM STIMULANTS

- Cocaine

- Amphetamines

- Methamphetamine

HALLUCINOGENS

■ LSD

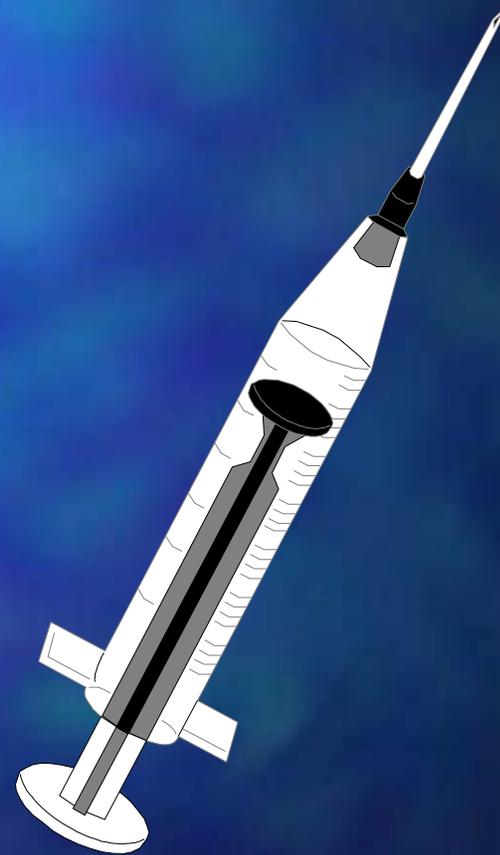
■ PEYOTE



PHENCYCLIDINE (PCP)

NARCOTIC ANALGESICS

- Heroin
- Morphine
- Codeine
- Synthetic Opiates (e.g., Demerol, Methadone)



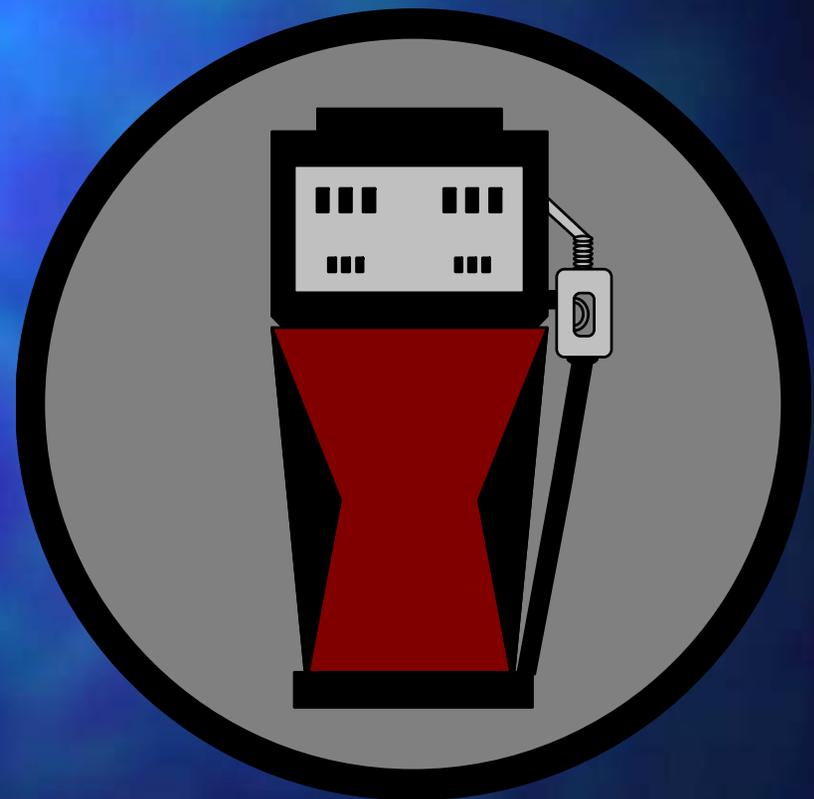
INHALANTS

Toluene

Gasoline

Other Volatile
Substances

Anesthetic Gases



CANNABIS

- Marijuana
- Hashish



40-50 Million Americans Regularly Use Drugs Other Than Alcohol



- Marijuana...20 Million
- Cocaine...8-20 Million
- Prescription Drugs...6 Million
- Hallucinogens...1 Million
- Heroin...1/2 Million

During a typical year, more than **60 million**

Prescriptions are written in America for Valium and similar tranquilizers.



High School Seniors and Drugs

During the past 12 months....

85% drank alcohol

40% smoked marijuana

25% used "stimulants"

10% used cocaine

10% used hallucinogens or tranquilizers, or both

5% used barbiturates...

...AND ONLY 5- 10% DIDN'T USE ANYTHING AT ALL

Studies show that more than **10%** of fatally-injured drivers have ingested drugs other than alcohol.



The Eye Examinations



EYE EXAMINATIONS USED TO ASSESS POSSIBLE DRUG OR MEDICAL IMPAIRMENT

- Tracking Ability
- Pupil Size
- Horizontal Gaze Nystagmus
- Vertical Nystagmus

TRACKING ABILITY

- If the two eyes do not track together, the possibility of a serious medical condition is present.
- Passing a stimulus across both eyes allows you to see if both eyes are tracking equally.
- If they don't, there is a possibility of a neurological disorder.

Drugs That Will Induce Nystagmus

CNS Depressants

PCP

(Most) Inhalants



PUPIL SIZE

PUPIL SIZE

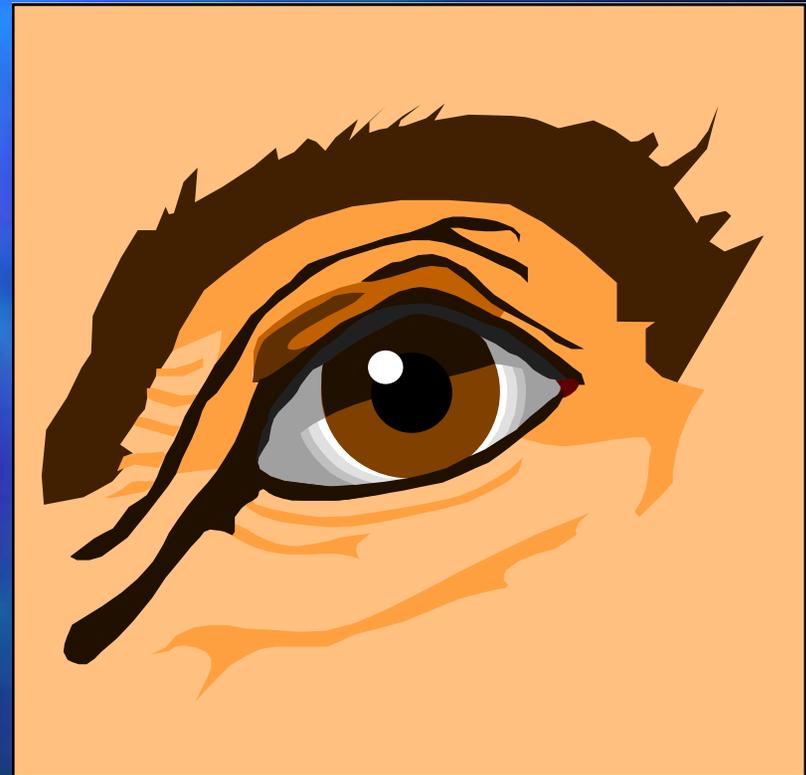
PUPIL SIZE

Drugs Causing Pupil Dilation

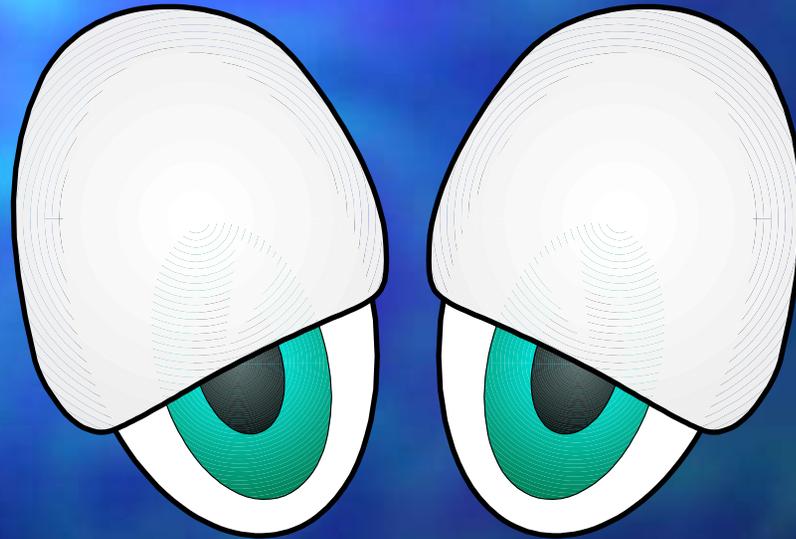
CNS Stimulants

Hallucinogens

Possibly Cannabis
(Slight Dilation)



Narcotic Analgesics Usually Cause Pupil Constriction



Drugs That Usually Don't Affect Pupil Size

CNS Depressants

PCP

Inhalants

HORIZONTAL GAZE NYSTAGMUS

What are the 3 clues?

- 1. Lack of Smooth Pursuit**
- 2. Distinct Nystagmus at Maximum Deviation**
- 3. Onset Prior to 45 Degrees.**

PCP Usually Causes
Immediate Onset of
Nystagmus

אוריאל - אוריאל



Central Nervous System Depressants



- Alcohol
- Barbiturates
- Valium
- Chloralhydrate

METHOD OF INGESTION

- CNS Depressants are usually taken orally, in the form of pills, capsules, liquids, etc.

Indicators of CNS Depressants Influence

General Indicators

- Drunken behavior and appearance
- Uncoordinated
- Drowsy
- Sluggish
- Disoriented
- Thick, slurred speech



Indicators of CNS Depressants Influence (Cont.)

Eye Indicators

- Horizontal Gaze Nystagmus
- Possibly Vertical Nystagmus
- Pupil size generally normal (but dilated by methaqualone, and soma.)

DURATION OF EFFECTS

- BARBITURATES: 1-16 HRS.
- TRANQUILIZERS: 4-8 HRS.
- METHAQUALONE: 4-8 HRS.

Central Nervous System Stimulants

Cocaine

Amphetamines

Methamphetamine



METHODS OF INGESTION

Cocaine abusers may take the drug by:

- "Snorting"
- Smoking (freebase, or "Crack")
- by injection
- orally

METHODS OF INGESTION

Abusers of amphetamines may take their drugs by:

- Injection
- Orally
- by "Snorting"

Indicators of CNS Stimulant Influence

General Indicators

- Restlessness, Excitation
- Talkative
- Euphoria
- Exaggerated Reflexes
- Anxiety
- Grinding Teeth
- Redness to Nasal Area
- Runny Nose
- Body Tremors



Indicators of CNS Stimulant Influence (Cont.)

Eye Indicators

- No Nystagmus
- Pupils will be noticeably dilated

DURATION OF EFFECTS

- COCAINE: 5-90 MIN.
- AMPHETAMINES: 4-8 HRS.
- METHAMPHETAMINES: 12 HRS.

Hallucinogens

Psilocybin

LSD

Peyote

MDA

Synesthesia:

A Transposition of Senses

"Seeing Sounds"

"Hearing Colors"



METHODS OF INGESTION

Hallucinogen abusers usually take their drugs orally: however, some can be smoked, or injected or "snorted."

Indicators of Hallucinogen Abuse

General Indicators

- Hallucinations
- Dazed Appearance
- Disoriented,
Uncoordinated
- Body Tremors
- Perspiring
- Paranoia
- Difficulty in Speech
- Nausea

Indicators of Hallucinogen Abuse (Cont.)

Eye Indicators

- No Nystagmus
- Pupils will be noticeably dilated

DURATION OF EFFECTS

- DURATION VARIES WIDELY FROM ONE HALLUCINOGEN TO ANOTHER.

Phencyclidine

(PCP)



METHODS OF INGESTION

- Many PCP users smoke the drug, by using it to adulterate tobacco, marijuana, or various other substances.
- PCP can also be taken orally or by injection, or inhaled.

Indicators of PCP Influence

General Indicators

- Warm to the Touch
- Perspiring
- Blank Stare
- Repetitive Speech
- Incomplete Verbal Responses
- Confused
- Muscle Rigidity
- Possibly Violent and Combative

Indicators of PCP Influence (Cont.)

Eye Indicators

- Horizontal Gaze Nystagmus with Very Early Onset
- Vertical Nystagmus
- Pupil Size Generally Normal

DURATION OF EFFECTS

- ONSET: 1-5 MIN.
- PEAK EFFECTS: 15-30 MIN.
- EXHIBITS EFFECTS: 4-6 HRS.

NARCOTIC ANALGESICS

Heroin

Morphine

Codeine

Synthetic
Opiates

(e.g., Demerol,
Methadone)

NARCOTIC ANALGESICS

A large number of drugs that share three important characteristics.

- 1. They will relieve pain.**
- 2. They will produce withdrawal signs and symptoms after chronic administration.**
- 3. They will suppress the withdrawal signs and symptoms of chronic morphine administration.**

METHODS OF INGESTION

- Some narcotic analgesics (such as heroin) usually are injected.
- Some narcotic analgesics (such as codeine) usually are taken orally.

The Concept of Tolerance for a Drug

1. The same dose of the drug will produce diminishing effects.
2. A steadily larger dose is needed to produce the same effect.

Indicators of Narcotic Analgesic Influence

General Indicators

- “On the Nod”
- Droopy Eyelids
- Depressed Reflexes
- Dry Mouth
- Facial Itching
- Low, Raspy Speech
- Possibly Puncture Marks, “Tracks”



Indicators of Narcotic Analgesic Influence (Cont.)

EYE INDICATORS

- NO NYSTAGMUS**
- PUPILS WILL BE SEVERELY
CONSTRICTED.**

DURATION OF EFFECTS

- HEROIN: 4-6 HRS.
- METHADONE: UP TO 24 HRS.
- OTHERS: VARY

Inhalants



Toluene

Gasoline

Spraypaint

Many Common

Household

Products

Nitrous Oxide

Indicators of Inhalant Influence

General Indicators

- Disorientation
- Slurred Speech
- Residue of substance on face, hands, clothing
- Confusion
- Possible Nausea

Eye Indicators

- Horizontal Gaze Nystagmus usually will be present
- Vertical Nystagmus may be present
- Pupil size will generally be normal

DURATION OF EFFECTS

- 6-8 HRS. FOR MOST VOLATILE SOLVENTS
- ANESTHETIC GASES AND AEROSOLS - VERY SHORT DURATION

Cannabis

Marijuana

Hashish



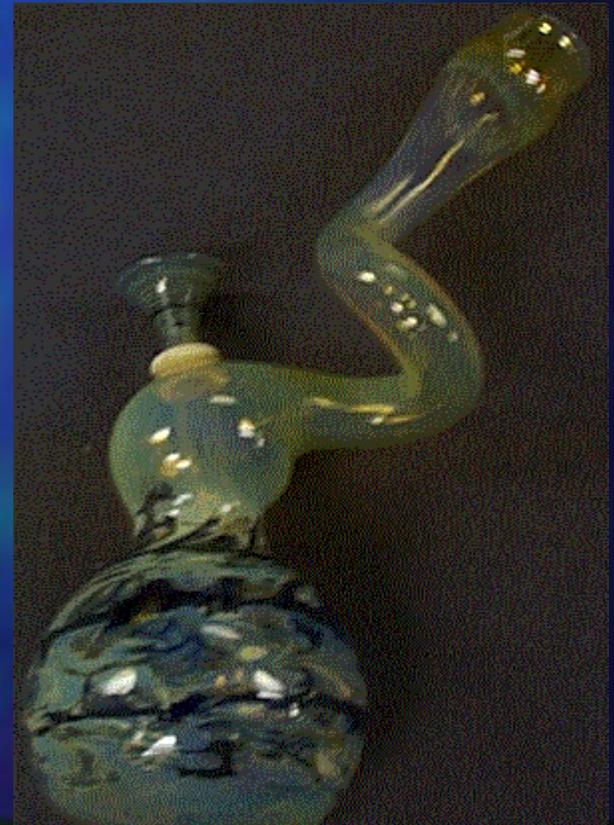
METHODS OF INGESTION

Cannabis products usually are smoked, although they also can be ingested orally.

Indicators of Cannabis Influence

General Indicators

- Very bloodshot eyes, with pronounced veins in the eyeballs
- Body Tremors
- Odor of Marijuana
- Disoriented
- Relaxed Inhibitions
- Difficulty in dividing attention



Indicators of Cannabis Influence (Cont.)

Eye Indicators

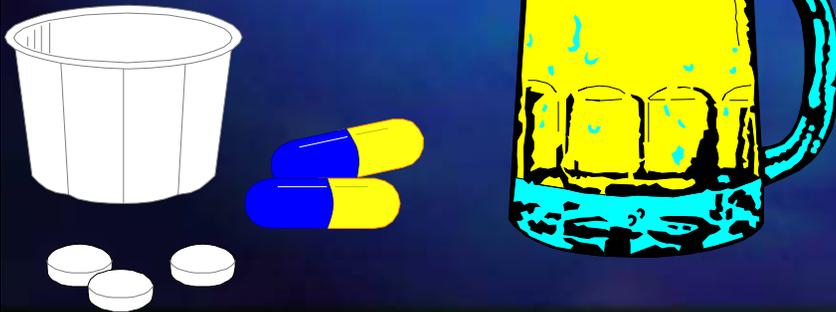
- No Nystagmus**
- Pupil size normal or perhaps slightly dilated**

POLYDRUG USE

- Using two or more drugs at the same time

Examples:

- PCP and Marijuana
- Heroin and Cocaine
- Many others



General Types of Polydrug Effects

ADDITIVE

(The two drugs independently produce some similar effects)

EXAMPLE

Depressants and Narcotic Analgesics both induce drowsiness

ANTAGONISTIC

(The two drugs produce some opposite effects)

EXAMPLE

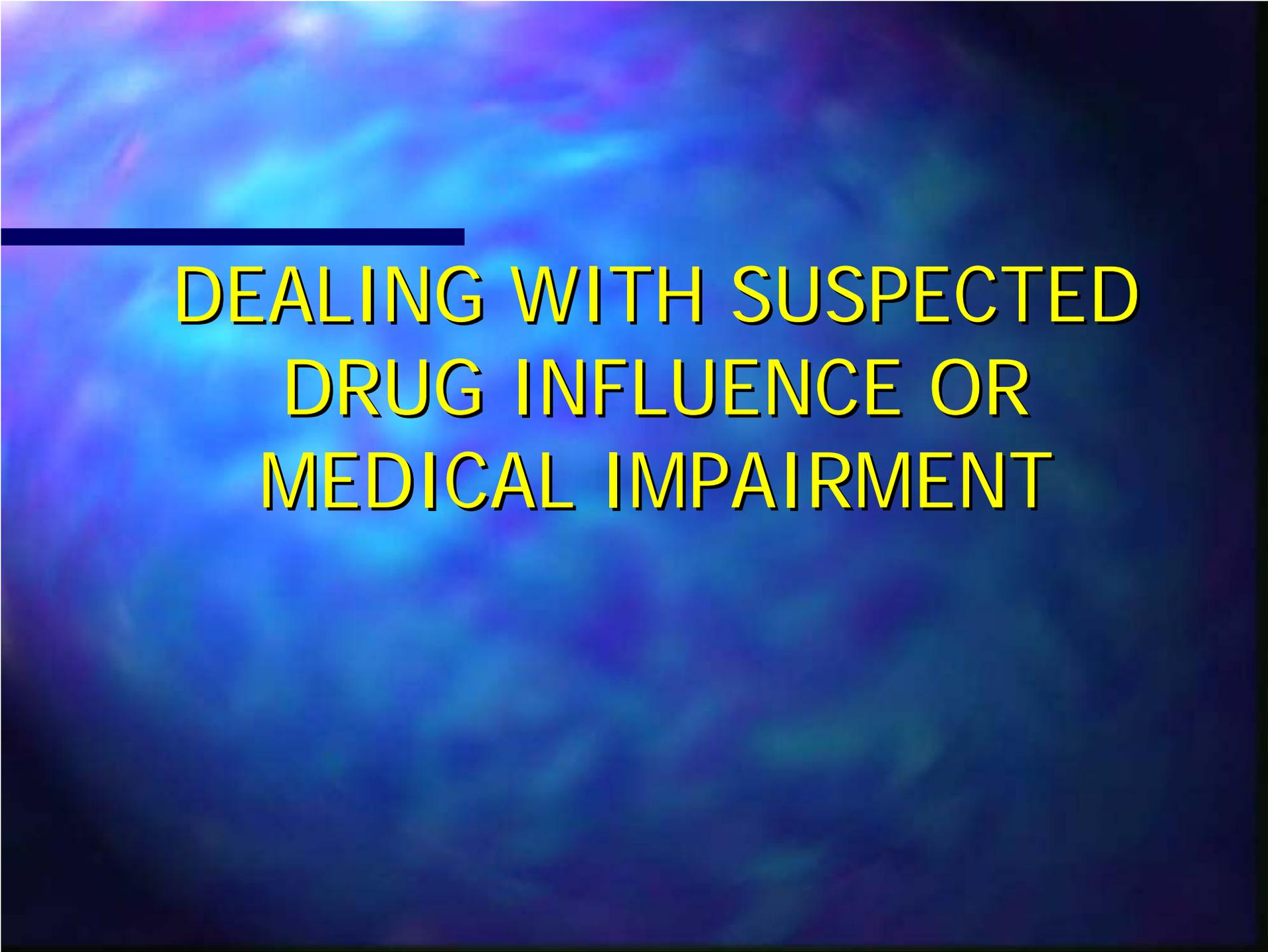
Stimulants usually cause pupil dilation, narcotics usually cause constriction.

OVERLAPPING

(Each drug affects people in some distinct ways)

EXAMPLE

PCP causes nystagmus but doesn't affect pupil size; narcotics constrict pupils, but doesn't cause nystagmus.



**DEALING WITH SUSPECTED
DRUG INFLUENCE OR
MEDICAL IMPAIRMENT**

WITH SOMEONE UNDER THE INFLUENCE OF DRUGS:

- Contact DRE if available
- Question Suspect

A PERSON WHO POSSIBLY HAS A MEDICAL CONDITION

- Check your school policy
 - EMT's
 - Medical Doctor's Exam
- Question Suspect
 - Injuries (past, present)
 - Medical Conditions (Diabetes, Epilepsy, etc.)

THE END