DRUG IMPAIRMENT TRAINING
for
WORKPLACE PROFESSIONALS

Presented By:

[Logos]
Goal Of This Program

To enable workplace professionals to identify chemically impaired individuals and types of drugs for the purpose of ensuring a safe workplace environment.
Objectives

- Describe Drug Impairment signs and symptoms.
- Properly interpret the results of your observations.
All Terminology and information is based on medical and scientific fact and has been field tested.
Signs and symptoms presented have been validated in both laboratory and field studies.
• Change in behavior
• Change in personal hygiene
• Physical changes
• Change in friends/associates
<table>
<thead>
<tr>
<th>Step One</th>
<th>Verify that the individual is impaired.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Two</td>
<td>Determine whether the impairment is drug related or medically related.</td>
</tr>
<tr>
<td>Step Three</td>
<td>Use proven diagnostic assessment procedures to determine the category or categories of drugs likely to cause the impairment.</td>
</tr>
</tbody>
</table>
What is a Drug?

Any substance that alters an individual’s perception or behavior, reducing the individual’s ability to function safely in the workplace
Definition

“Any substance that alters perception or behavior reducing that individual’s ability to function appropriately in a Workplace Environment.”
Within this definition there are seven categories of drugs.

* Each category consists of substances that impair a person’s mental and physical ability.

* The categories differ from one another in terms of how they impair ability and the type of impairment they produce.

* Because the categories produce different types of impairment, they generate different signs and symptoms.

* With training and practice, you will be able to recognize signs and symptoms of drug influence and determine what category is causing the impairment you observe in a subject.
Central Nervous System Depressants

Legally prescribed for depression, anxiety, phobias, and other psychotic disorders.

This category involves a large number of drugs that slow down the operation of the brain as well as other parts of the central nervous system.

These drugs depress the pulse, blood pressure, respiratory system, and body temperature of the user.
Alcohol
The most familiar CNS Depressant
CNS Depressants Include:

Alcohol

Anti-Anxiety Tranquilizers (Valium, Xanax)

Barbiturates (Pentobarbital, Phenobarbital)

Anti-Depressants (Prozac, Nardil)

Anti-Psychotics (Thorazine, Haldol)

GHB
Secobarbital
Phenobarbital
Libritabs/Librium Capsules

Roche

5 mg  10 mg  25 mg

*Libritabs®
(chlordiazepoxide/Roche)

Roche

5 mg  10 mg  25 mg

*†Librium®
(chlordiazepoxide HCl/Roche)
Valium Tablets

Roche

2 mg  5 mg  10 mg

*†Valium®
(diazepam/Roche)
Injectable Valium

*Valium Injectable*
Xanax Tablets

Upjohn

0.25 mg  
29*

0.5 mg  
55*

1.0 mg  
90*

Xanax® Tablets  
(alprazolam tablets, USP)
Prozac
Thorazine
Quaaludes
Rohypnol
Soma
Horizontal Gaze Nystagmus (HGN) will usually be present. Vertical nystagmus will be present with high dose for that individual.
Eye Indicators

Pupil size will usually be Dialated
General Indicators

Drowsy

Dilated pupils

Uncoordinated
Low Heart Rate

Drunk like behavior

Blank stare

Thick slurred speech

Ptosis (Droopy Eyes)
Overdose Symptoms

- Shallow breathing
- Cold/clammy skin
- Pupils dilated
- Rapid/weak pulse
Methods Of Ingestion

Oral - principle method of ingestion

Injected
Depending on the type of depressant, the effects can last from a few minutes to approximately fourteen hours.
GHB Influence
CNS Stimulants Include:

Cocaine / Crack
Amphetamines
Methamphetamine
CNS Stimulants

Cocaine

Methamphetamine

Amphetamines
  (Dexedrine, Desoxyn)

Ritalin

Cylert

Ephedra

Insufflated, injected, Oral, Smoked
Cocaine Powder
Cocaine Bindle
Packaged Crack Cocaine
Pharmaceutical Amphetamine Tablets and Capsules
Powder and Crystal Methamphetamine
“Ice”
Ritalin

Adderall

Dexedrine
Ephedrine and Pseudoephedrine
The high-energy drink is being billed as a "legal alternative" to the class A drug, using a massive hit of caffeine instead of cocaine.

Its maker claims the title is "a bit of fun" but critics slammed the technique as a cynical ploy which could tempt young people into using drugs.

The drink's inventor, Jamie Kirby, said: "It's an energy drink, and it's a fun name. As soon as people look at the can, they smile."

He claims Cocaine is "350 percent stronger than Red Bull" but that people do not experience the "sugar crash" or jitters that he says some of the other energy drinks can produce.
Psychophysical Indicators

Divided attention impairment

Rapid and jerky movements
Eye Indicators

No nystagmus present.

Pupils usually noticeably dilated.
General Stimulant Indicators

Restlessness
Anxiety
Excited
Exaggerated reflexes
Bruxism
Runny nose
Paranoia
Euphoria
Loss of appetite
Loss of weight
Stimulant Overdose Symptoms

Confusion
Feelings of pleasure to panic
Convulsions
Fainting
Aggressiveness
Dramatic increase in heart rate
Hallucinations
Coma
Methods of Ingestion

Oral

Smoking

Snorting

Injecting
Handmade Crack Cocaine Pipes
Methamphetamine
Glass Pipes Used to Smoke Crack Cocaine
Stimulant Influence
# Duration of Effects

<table>
<thead>
<tr>
<th>Drug</th>
<th>Onset</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocaine (Powder)</td>
<td>Immediate**</td>
<td>30-90 Minutes</td>
</tr>
<tr>
<td>Cocaine (Crack)</td>
<td>Immediate**</td>
<td>5-10 Minutes</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>30-40 Seconds</td>
<td>4-8 Hours</td>
</tr>
<tr>
<td>Methamphetamine (Crank or Speed)</td>
<td>30-40 Seconds</td>
<td>4-8 Hours</td>
</tr>
<tr>
<td>Methamphetamine (Ice)</td>
<td>8-30 Seconds</td>
<td>Up to 8 Hours or Longer</td>
</tr>
</tbody>
</table>

** depends on method of ingestion
Hallucinogens
Hallucinogens

This category of drugs includes organic, natural substances and some synthetic chemicals.

Hallucinogens cause synesthesia, the user sees sounds and hears colors. Dilated pupils, heart rate, blood pressure, and body temperature will be elevated.
Synesthesia

The transposition of sensory modes.

“Seeing Sounds”

“Hearing Colors”
Some hallucinogenic drugs occur naturally, others are synthetic in origin.

**Synthetic Examples**
- LSD
- MDMA

**Natural Examples**
- Peyote
- Psilocybin
Liquid LSD
LSD Blotter Paper
“Window Pane” LSD
MDMA (Ecstasy)
Ecstasy Pills
MDMA Capsules
Peyote Cactus
Dried Peyote Buttons
Peyote Capsules
Psilocybin Mushroom
Nutmeg
Jimson Weed
Eye Indicators

No nystagmus present.

Pupils usually noticeably dilated.
Psychophysical Indicators

Uncoordinated
Severe divided attention impairment
Poor perception of time and distance
Poor balance
General Indicators

Dazed appearance
Body tremors
Perspiring
Paranoia
Disoriented
Nausea
Difficulty with speech
Piloerection
Statements suggesting hallucinations
Flashbacks

Emotional – most dangerous, feelings of panic, fear, etc., ... sensation of a “bad trip.”

Somatic – altered bodily sensations, tremors, weakness, dizziness, crawly, tingly feeling on the skin.

Perceptual – distortions of vision, hearing, smell, taste and touch. Associated with original “trip,” least harmful, unless driving a motor vehicle.
Most common danger of an overdose is an intense “bad trip” which can result in severe and sometimes permanent psychosis. Accidental death or suicide may also result from an intense bad trip.
Methods Of Ingestion

- Oral
- Smoked
- Trans-dermal absorption
- Snorted
- Injected
# Duration of Effects

<table>
<thead>
<tr>
<th>Drug</th>
<th>Onset</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSD</td>
<td>30-60 Minutes</td>
<td>Up to 12 Hours</td>
</tr>
<tr>
<td>Peyote</td>
<td>30 Minutes-1 Hour</td>
<td>10-12 Hours</td>
</tr>
<tr>
<td>Psilocybin Mushrooms</td>
<td>Within 30 Minutes</td>
<td>3-5 Hours</td>
</tr>
<tr>
<td>MDMA</td>
<td>30 Minutes-1 Hour</td>
<td>4-24 Hours</td>
</tr>
</tbody>
</table>
PCP
Phencyclidine is a shortened form of the chemical name PhenylCyclohexylPiperidine or PCP.

An “analog” is a “chemical first cousin.”

An analog has a slightly different chemical structure but produces the same effects.

Ketamine, an analog of PCP, is legally manufactured for use in veterinary surgery.
Sherm and PCP
Sherms
Ketalar
Psychophysical Indicators

Divided attention impairment

“Moon-walking”
Eye Indicators

HGN/vertical nystagmus present.

Pupil size normal.
General Indicators

- Blank stare
- Loss of memory
- Perspiring heavily
- Warm to touch
- Incomplete, slurred verbal responses
General Indicators (continued)

Cyclic behavior

Agitated

Rigid muscle tone

Disoriented

Non-responsive

Chemical odor
Methods Of Ingestion

Smoked

Snorted

Oral

Injected

Trans-dermal absorption
## Duration of Effects

<table>
<thead>
<tr>
<th>Onset</th>
<th>Peak</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-5 Minutes</td>
<td>15-30 Minutes</td>
<td>1-8 Hours</td>
</tr>
</tbody>
</table>
Narcotic Analgesics / Opiates

This category includes Natural derivatives of Opium.

Many prescriptions using derivatives and synthetics

Narcotics relieve pain but also can cause withdraw symptoms if abused
Signs of use include Constricted pupils, low heart rate, blood pressure and body temperature
Narcotic Analgesics

Natural Alkaloids: occur naturally in Opium. Synthetics: chemically produced Narcotic Analgesics with no relations to opium but produce similar effects.
Generalized Effects

Constricted pupils
Droopy eyelids  (on the nod)
Drowsiness
Slow reflexes
Shallow breathing
Clammy skin
Constricted-no reaction pupils

Ingestion:

Smoked
injected
insufflated
oral
Various Colors of Heroin
Hydrocodone

Lortab

Vicodin HP
Tylenol #3

Darvocet
Psychophysical Indicators

- Divided attention impairment
- Poor coordination and balance
Eye Indicators

No nystagmus

Pupils will be constricted.

Eyelids will be droopy.
General Indicators

“Track marks”
“On the nod”
Slowed reflexes
Low, slow, raspy speech
Facial itching
Dry mouth
Euphoria
Flaccid muscle tone
Overdose Signs and Symptoms

- Slow and shallow breathing
- Clammy skin
- Blue lips
- Pale or blue body
- Constricted pupils
Signs and Symptoms of Withdrawal

- Chills
- Aches of the muscle or joints
- Nausea
- Sweating
- Goose bumps
- Yawning
- Tearing of the eyes
- Runny nose
- Vomiting
Methods Of Ingestion

Injected
Smoked
Snorted
Suppositories
# Duration of Effects

<table>
<thead>
<tr>
<th>Drug</th>
<th>Onset</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>5-30 Minutes</td>
<td>4-6 Hours</td>
</tr>
<tr>
<td>Methadone</td>
<td>5-30 Minutes</td>
<td>Up to 24 Hours</td>
</tr>
<tr>
<td>Dilaudid</td>
<td>15 Minutes</td>
<td>5 Hours</td>
</tr>
<tr>
<td>Percodan</td>
<td>15 Minutes</td>
<td>4-6 Hours</td>
</tr>
</tbody>
</table>
Cannabis

Marijuana and other products such as Salvia, impair the attention process, divided attention processes and short term memory.
Types Of Cannabis

Marijuana
Hashish
Hashish Oil
Marinol
CBD
Vaping (CBD)
Psychophysical Indicators

- Divided attention impairment
- Poor coordination and balance
Eye Indicators

No nystagmus.
Pupil size will be dilated but may be normal.
General Indicators

Odor of marijuana
Relaxes inhibitions
Marked reddening of the whites of the eyes
Body tremors
Disorientation
Impairs attention
Impaired perception of time and distance
Overdose Signs and Symptoms

- Sharp personality changes
- Paranoia
- Possible psychosis
Long-Term Effects

Lung damage
Chronic bronchitis
Lowering of testosterone
Possible birth defects
Chronic reduction in attention span
Withdrawal is similar to alcohol dependence withdrawal
Methods Of Ingestion

Smoked

Oral
### Duration of Effects

<table>
<thead>
<tr>
<th>Onset</th>
<th>Peak</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-9 Seconds</td>
<td>10-30 Minutes</td>
<td>2-6 Hours</td>
</tr>
</tbody>
</table>
Drug Combinations

Polydrug use is defined as: having two or more drug categories in the body at the same time
Some medical conditions may mimic drug induced impairment

Diabetes
Brain disorders
Injuries
Eye Examinations

Vital Signs

Divided Attention Testing

Drug Combinations

Assessments
Eye Examinations
Gaze Nystagmus

- Horizontal Gaze Nystagmus
- Vertical Nystagmus
- Resting Nystagmus
Position the stimulus 12” - 15” slightly above eye level

Preliminary Tests:
Equal tracking
Equal pupil size
Move the stimulus to the person’s left

It should take approximately 2 seconds to bring it to the side

Check the other eye at the same speed
Repeat
Move the stimulus to the person’s left

Hold the stimulus at the corner of the eye (no white showing) for at least 4 seconds

Check the other eye and hold for same length
Repeat
Slowly (at least 4 seconds) move the stimulus to the person’s left

If nystagmus is observed, hold the stimulus to verify it continues

Check the other eye and hold for same length

Repeat
Move the stimulus vertically

At least 4 Seconds

Raise the stimulus until the individual’s eyes are elevated as far as possible and hold for at least four seconds

Repeat
Room Light

Near Total Darkness

Direct Light
<table>
<thead>
<tr>
<th></th>
<th>CNS Depressant</th>
<th>CNS Stimulant</th>
<th>Hallucinogen</th>
<th>PCP</th>
<th>Narcotic Analgesic</th>
<th>Inhalant</th>
<th>Cannabis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HGN</strong></td>
<td>Present</td>
<td>None</td>
<td>None</td>
<td>Present</td>
<td>None</td>
<td>Present</td>
<td>None</td>
</tr>
<tr>
<td><strong>VGN</strong></td>
<td>Present *</td>
<td>None</td>
<td>None</td>
<td>Present</td>
<td>None</td>
<td>Present *</td>
<td>None</td>
</tr>
<tr>
<td><strong>LOC</strong></td>
<td>Present</td>
<td>None</td>
<td>None</td>
<td>Present</td>
<td>None</td>
<td>Present</td>
<td>Present</td>
</tr>
<tr>
<td>Pupil Size</td>
<td>Normal*</td>
<td>Dilated</td>
<td>Dilated</td>
<td>Normal</td>
<td>Constricted</td>
<td>Normal*</td>
<td>Dilated*</td>
</tr>
<tr>
<td>Reaction To Light</td>
<td>Slow</td>
<td>Slow</td>
<td>Normal *</td>
<td>Normal</td>
<td>Little or None</td>
<td>Slow</td>
<td>Normal</td>
</tr>
</tbody>
</table>

- Present
- None
- Normal
- Normal *
- Dilated
- Dilated *

- High dose for that particular person.
- Pupil size may be dilated for Soma and Quaaludes.
- Pupil size may be normal.
- Certain psychedelic amphetamines may cause slowing.
Vital Sign Examinations
Body Temperature - 98.6°F +/- 1.0°F

Blood Pressure - 120 to 140
   70 to 90

Pulse - 60 to 90 bpm
<table>
<thead>
<tr>
<th></th>
<th>CNS Depressant</th>
<th>CNS Stimulant</th>
<th>Hallucinogen</th>
<th>PCP</th>
<th>Narcotic Analgesic</th>
<th>Inhalant</th>
<th>Cannabis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pulse</strong></td>
<td>Down *</td>
<td>Up</td>
<td>Up</td>
<td>Up</td>
<td>Down</td>
<td>Up</td>
<td>Up</td>
</tr>
<tr>
<td><strong>Blood Pressure</strong></td>
<td>Down</td>
<td>Up</td>
<td>Up</td>
<td>Up</td>
<td>Down</td>
<td>Up/Down*</td>
<td>Up</td>
</tr>
<tr>
<td><strong>Body Temp</strong></td>
<td>Normal</td>
<td>Up</td>
<td>Up</td>
<td>Up</td>
<td>Down</td>
<td>Up/Normal/Down</td>
<td>Normal</td>
</tr>
</tbody>
</table>

✴ Quaaludes and ETOH may elevate.

✴ Up for aerosols and volatile solvents and down for anesthetic gases.

DITEP – Drug Impairment Training for Educational Professionals
What drugs will decrease Vital Signs?
Administrative Procedures:
Walk and Turn
(Divided Attention Test - Mental Task and Physical Task)

Instructions Stage
Walking Stage
When told to, you will take 9 heel-to-toe steps down the line (demonstrate)

On your 9th step, leave your front foot in place and turn, taking short choppy steps (demonstrate)

Then return back up the line taking 9 heel-to-toe steps (demonstrate)

Do you understand?
Remember – look at your feet, keep your hands at your side, count your steps out loud, and do not stop until you have completed the entire task.

Do you understand?
Walk and Turn Test Clues

Can’t balance during instructions
Starts too soon
Stops while walking
Doesn’t touch heel-to-toe
Steps off line
Uses arms to balance
Improper turn (or loses balance on turn)
Wrong number of steps

Note: If the individual can’t do test, record as if all eight clues were observed.
One Leg Stand
Swaying
Uses arms for balance
Puts foot down
Finger to Nose
Tell the subject to close their eyes, tilt their head back and use the following sequence

left, right, left, right, right, left
Assessments
## Reasonable Suspicion Form

**REASONABLE SUSPICION TESTING CHECKLIST**

<table>
<thead>
<tr>
<th>Reasonable Suspicion</th>
<th>Apparent Cause</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BEHAVIOR**
- Frustration
- Agitation
- Anger
- Mood swings
- Delusional behavior
- Disorientation
- Inappropriate behavior
- Denial of此时
- Unprovoked violence
- Physical aggression
- Inappropriate speech

**APPEARANCE**
- Gait
- Speech
- Speech
- Handwriting
- Style
- Expression

**BREATH**
- Alcohol
- Marijuana
- Opiates
- Amphetamines
- Cocaine

**BODY ODORS**
- Alcohol
- Marijuana
- Opiates
- Amphetamines
- Cocaine

**Other observations**

<table>
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</table>

**TESTS**
- Vision
- Hearing
- Speech
- Writing

**Reasonable Suspicion**
- Handwriting
- Speech
- Writing

**Reasonable Suspicion Test**
- Drug screening
- Breathalyzer
- Field sobriety test

<table>
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<th>Apparent Cause</th>
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Thank You!

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