

*Employee  
Education Program*

**Consequences  
And Effects of  
Substance Abuse  
AND  
Alcohol Misuse**

**JANESVILLE SAND & GRAVEL CO. / LYCON INC.**



JANESVILLE SAND & GRAVEL CO.



**For CDL Holders Covered Under  
DOT Regulations 49 CFR Part 382**

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Janesville Sand & Gravel Co. / LYCON Inc. is subject to extensive governmental regulations that seek to promote the safety of the general public. Therefore, out of concern for the safety, health and well-being of its employees and the general public, as well as an obligation to comply with United States Department of Transportation (DOT) Regulations (49 CFR Part 382), Janesville Sand & Gravel Co. / LYCON Inc. has established procedures which require its employees to submit to alcohol and drug tests.

- *As part of these regulations, Janesville Sand & Gravel Co. / LYCON Inc. is required to provide you with these educational materials concerning the effects of alcohol and controlled substances on health, work and personal life.*
- *Also contained in this booklet is a general overview of drug and alcohol testing as required by the Department of Transportation.*
- *This booklet is intended to supplement the drug and alcohol policy that you received from Janesville Sand & Gravel Co. / LYCON Inc.*

If you have any questions regarding this information or any aspect of your drug and alcohol testing program, please contact Jeff Lemirande or Bill Becker to answer any of your questions.

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# Effects of Drug and Alcohol Use on Safety and the Work Environment

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## **Absenteeism**

You may observe tardiness or excessive use of sick leave. Drug and/or alcohol affected employees are absent an average of two or three times more often than employees who do not use alcohol or other drugs.

## **Staff Turnover**

Chemically dependent people have disorganized lives. Many quit rather than face detection. Others transfer or are fired for poor and unsafe performance.

## **Lower Productivity**

Studies have shown drug and/or alcohol affected employees perform at about two-thirds of their actual work potential. Thus, any change in productivity not attributable to other factors may be suspect.

## **Equipment Breakdown**

Substance abusing employees often do not adequately maintain their vehicles, because they either lose interest in their jobs, or look forward to having their equipment declared out of service to avoid work.

## **Poor Work Quality**

Shoddy work, rework and material waste may be evident. In drivers, decreased mental and physical agility and concentration caused by substance abuse could result in more Federal Motor Carrier Safety Regulations or general traffic violations, increased cargo damage or passenger complaints, missed schedules, incomplete or lost shipments and more traffic accidents (both non-reportable and reportable).

## **Poor Morale**

Chronic drug abuse often creates wide mood swings, anxiety, depression and anger. Non-drug using employees often see drug abusers as poor team workers and safety hazards.

## **Increase Accidents and Near Misses**

Impaired employees are 3.6 times more likely to be involved in an accident. Even small quantities of drugs in the system, and the hangover effect, can cause a deterioration of alertness, clear-mindedness and reaction time.

## **Theft of Equipment and Material**

Drugs are expensive. Cocaine costs up to \$135 a gram. One ounce of highly potent marijuana costs \$85 to \$125. Coinciding with drug abusers need for money is the distortion of their value systems and judgment caused by the drug. These changes erode their loyalty and dedication to their employers.

Observing these indicators may be complicated, because drug and/or alcohol abusing employees often develop survival skills to make recognition more difficult. Initially, the routine performance monitoring and correction processes can best address these performance indicators. Typically, a supervisor may confront an employee regarding job performance. This confrontation is based on objective, documented information related to performance deterioration, not the specific signs of substance abuse.

# General Physical and Mental Effects of Drug and Alcohol Use

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The physical and mental effects of substance abuse occur not only during intoxication (from less than one hour to 24 hours after intake), but also show up in residual hangovers, fatigue rebounds and mental impairment. Other physical and mental effects may include the following:

- Slow reactions
- Poor coordination
- Fatigue
- Delayed decision making
- Erratic judgment quality
- Confusion
- Learning difficulty
- Poor memory
- Loss of concentration
- Depression or anxiety
- Difficulty in sorting out priority tasks from non-essential activity
- Neurotic or psychotic behavior
- Refusal to accept authority

## Behavior Signs of Substance Abuse

General performance or behavior problems with an employee may suggest drug or alcohol use. Examples of such behavior include:

- A sudden change, usually for the worse, in attitude, work performance or behavior
- A lackadaisical or I don't care attitude (often an indication of marijuana use)
- Deteriorating or erratic performance
- Hangover symptoms
- Drug culture jargon
- Secretive behavior; for instance, inappropriate whispering or wearing sunglasses indoors
- Wanting to be alone, avoiding straight (non-substance abusing) workers
- Forgetfulness, indecision and erratic judgment
- Impulsive and temperamental behavior
- Changes in personal appearance and hygiene
- Jitters, hand tremors, hyper excitability
- Carelessness
- Sleeping on the job

Each symptom by itself may point to problems other than drug abuse. However, when a pattern begins to develop, the supervisor or manager needs to be alert and act quickly. When fueled by drug or alcohol abuse, these behaviors can lead to greater absenteeism, higher operating costs, serious production problems and a definite increase in accidents and health care costs.

## **Physical Symptoms of Substance Abuse**

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Observable physical signs and symptoms are usually not apparent until the employee's drug and/or alcohol abuse has reached an advanced level. At advanced stages of drug use the employee is less able to disguise these physical indicators, and often becomes careless because of a clouded mental state. Specific signs include:

- Blood spots on shirt-sleeves  
(suggesting intravenous needle use)
- Bloodshot or watery eyes  
(usually caused by marijuana use)
- Changes in speech  
(slowed, slurred or incoherent)
- Hand tremors
- Intoxicated behavior  
(swaying, staggering)
- An odor of alcohol on breath
- An odor of marijuana smoke
- Actual on the job, out in the open drug use
- Poor coordination
- Racing heart, irregular rhythms (cocaine and amphetamines often cause the heart to react unpredictably)
- A runny nose or sores around nostrils (caused by chronic snorting of cocaine)
- Slow reactions
- An unsteady gait
- Very large or small pupils (narcotics and depressants will cause the pupils to constrict, cocaine and amphetamines will cause the pupils to dilate).

## **Common Job Sites Where Drugs Are Used**

Drug users tend to frequent certain job sites that allow for either the privacy necessary to prevent detection or the anonymity that may be provided by the cover of a crowded area. Common job sites where drugs are used include:

- Lunchrooms and lounge areas
- Parking lots, cars and other vehicles
- Remote areas of the worksite
- Equipment or storage rooms
- Restrooms

# Marijuana

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Marijuana comes from the cannabis sativa plant. The leaves or flower parts are dried and smoked and the resin is compressed into cakes called Hashish. The active ingredient is tetrahydrocannabinol (THC) and is sought after to produce euphoria, relaxation, sociability and sleepiness. Marijuana has a major impact on employees because its use is so common and its dangers are underestimated.

**Classification:** Hallucinogen. Dronabinol, Marinol, Nabilone.

**Common Street Names:** pot, dope, grass, hemp, weed, hooch, herb, hash, joint, Acapulco Gold, reefer, Mary Jane, roaches, sinsemilla, Thai sticks.

**Distinguishing Characteristics:** Like tobacco, marijuana consists of dried, chopped leaves that are green to light tan in color. Seeds are oval with one slightly pointed end. Marijuana has a distinctly pungent aroma resembling a combination of sweet alfalfa and incense. The less prevalent Hashish is a compressed, sometimes tar like substance ranging in color from pale yellow to black; it is usually sold in small chunks wrapped in aluminum foil.

**Paraphernalia:** Cigarette papers, roach clip holders and small pipes made of bone, brass or glass are commonly found. Smoking bonges (large-bore pipes for inhaling large volumes of smoke) can easily be made from soft drink cans and toilet paper rolls.

**Method of Intake:** Marijuana is usually inhaled in cigarette or pipe smoke. Occasionally, it is added to baking ingredients (i.e., brownies) and ingested. Tetrahydrocannabinol (THC), the active chemical detected in a urinalysis, is released by exposure to heat.

**Duration of Single Dose Effect:** The most obvious effects are felt for four to six hours. Preliminary studies suggest that performance impairment lasts longer. The active chemical, THC, stores in body fat and is slowly metabolized over time.

**Detection time:** Traces of marijuana will remain in the urine of an occasional user for up to 1 week, and, in the case of a chronic user, for 3 to 4 weeks.

**Dependency Level:** Evidence shows moderate psychological dependence.

## Signs and Symptoms

**Evidence of Presence of Marijuana:** plastic bags (commonly used to sell marijuana); smoking papers; roach clip holder; small pipes of bone, brass or glass; smoking bonges; distinctive odor.

**Physical Symptoms:** reddened eyes (often masked by eye drops); stained fingertips from holding joints, particularly for non-smokers; chronic fatigue; irritating cough, chronic sore throat; accelerated heartbeat; slowed speech; impaired motor coordination; altered perception; increased appetite.

**Behavioral Symptoms:** impaired memory; time-space distortions; feeling of euphoria; panic reactions; paranoia; "I don't care" attitude; false sense of power.

### DID YOU KNOW...

- 12 million Americans use marijuana regularly
- 70 percent of all drug users are employed
- 9.8 million regular marijuana abusers are in our workplaces
- Marijuana may cause impaired short term memory, a shortened attention span and delayed reflexes
- During pregnancy, marijuana may cause birth defects
- Marijuana may cause a fast heart rate and pulse
- Repeated use of marijuana may cause breathing problems
- Possession of marijuana is illegal in all fifty states
- Marijuana may cause relaxed inhibitions, disoriented behavior

# Effects of Marijuana Use on the Individual

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## General Health Effects

- Smoking marijuana irritates the lungs. Chronic smoking causes emphysema-like conditions.
- One cigarette (joint) of marijuana contains an amount of cancer-causing substance equivalent to that of one-half to one pack of tobacco cigarettes.
- One joint causes the heart to race and be overworked. People with undiagnosed heart conditions are at risk.
- Marijuana is commonly contaminated with the fungus *Aspergillus*, which can cause serious respiratory tract and sinus infections.
- Because marijuana smoking lowers the body's immune system response, it raises user's susceptibility to infection.
- Chronic marijuana smoking causes changes in brain cells and brain waves. In essence, the brain is less healthy and does not work as efficiently or effectively. Does long-term brain damage occur? More research is required, but the probable answer is yes.
- Combining alcohol or other depressant drugs and marijuana can produce a multiplier effect, aggravating the impairing effects of both the depressant and marijuana.
- Chronic smoking of marijuana in males causes a decrease in the male sex hormone, testosterone, and an increase in the female sex hormone, estrogen. The result is a decrease in sperm count, which can lead to temporary sterility. Occasionally, the onset of female sex characteristics including breast development occurs in heavy users.
- Chronic smoking of marijuana in females causes a decrease in fertility and an increase in testosterone.
- Pregnant women who are chronic marijuana smokers have higher than normal incidences of stillborn births, early termination of pregnancies and infant mortality rates during the first few days of life.
- One of the most common effects of prenatal cannabinoid exposure is underweight newborn babies.

## Effects on Mental Performance

*Regular use can cause the following effects:*

- Delayed decision making
- Diminished concentration
- Impaired short-term memory
- Impaired signal detection (impaired ability to detect a brief flash of light, a risk for users who are operating machinery or vehicles)
- Impaired tracking (the ability to follow moving objects with the eyes) and visual distance measurements
- Erratic cognitive function
- Distortions in time estimation

Long-term negative effects on mental function known as Aacute brain syndrome, which is characterized by disorders in memory, cognitive function, sleep patterns and physical condition.

## Effects on Driver Performance and Heavy Machinery Operation:

The mental impairments resulting from marijuana use produce reactions that can lead to unsafe and erratic driving behavior. Distortions in visual perceptions, impaired signal detection and altered reality can make driving a vehicle very dangerous.

## Overdose Effects:

- Aggressive urges
- Anxiety
- Confusion
- Fearfulness
- Hallucinations
- Heavy sedation
- Immobility
- Mental dependency
- Panic
- Paranoid reaction
- Unpleasant distortions in body image

## Withdrawal Syndrome:

- Sleep disturbance
- Hyperactivity
- Decreased appetite
- Irritability
- Gastrointestinal distress
- Salivation, sweating and tremors

# FACTS ABOUT DRUGS

## MARIJUANA

### WHAT IT IS

**Names:** Cannabis sativa, hashish, hashish oil, marijuana, Mary Jane, Acapulco Gold, ace, bhang, Colombian, ganja, grass, hemp, Indian, Jamaican, jive, joint, Mexican, Maui wowie, Panama Red, Panama Gold, pot, reefer, ragweed, sativa, sinse, tea, Thai sticks, weed, roach, hash, hash oil, honey oil, weed oil.

**Type:** Hallucinogen.

**Forms:** Grey-green to green-brown dry leaf, resin oil, leaf oil.

**Combinations:** With PCP, “supergrass,” “killer weed”; with opium, “O.J.”; with heroin, “atom bomb,” “A-bomb.”

**Usage:** Inhaling by smoking a “joint,” bong or pipe. May be cooked or baked in foods and eaten.

**Legal Status:** Illegal.

**Other Forms:** The prime psychoactive element of cannabis, Tetrahydrocannabinol (THC), is administered in gelatin capsules for medical research testing of nausea treatment related to cancer chemotherapy, glaucoma, epilepsy and muscle spasm due to multiple sclerosis or spinal cord injury.

### WHAT IT FEELS LIKE

Feelings of contentment and relaxation may be accompanied by loss of inhibition, bouts of laughter, continuous talking, increased sensitivity to audio and visual effects, increased sensitivity of touch, smell, taste and movement. Confusion, disorientation, recent memory loss, reduced attention span, lack of balance and stability, loss of muscle strength, shaking, anxiety, and paranoia may occur with higher dosages.

### WHAT IT DOES

**To Your Mind:** Distorts perception of reality.

**To Your Body:** Increases heart rate, lowers blood pressure, limits control of movement.

### HOW IT CAN HURT YOU

Heart related effects. Asthma, bronchitis, damage to respiratory system and tissue. Reddening of eyes, change in sex drive, infertility. Changes in body temperature, hallucinations, slowed reaction time. Delusions, panic, toxic psychosis, activation of latent schizophrenia which may continue indefinitely. Amotivational syndrome, memory loss with possible permanent brain damage.

Death of self and other due to driving under the influence, especially when combined with alcohol.

Dependence can develop as a psychological craving.

Unborn children of mothers who use cannabis may develop congenital defects or experience delayed development after birth.

### WHEN TO GET HELP

- Do you think about how and when you're going to smoke again?
- Do you worry if no marijuana is available?
- Is your job or school performance affected?
- Do you spend more and more money on pot?
- Have you been stopped for driving under the influence?

One “yes” and your common sense tells you it's time to get smart about drugs and the rest of your life.

**Fact:** Cannabis is the most abused psychoactive drug by students after school.

# Cocaine

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This drug is available as a white powder or white rock which users inhale or snort. Purified and in its freebase form users can smoke the drug as crack. The crack form is usually very pure and highly addictive. Both forms of the drug are sought after for feelings of superiority, power and exhilaration.

**Classification:** Stimulant and local anesthetic. Cocaine Hydrochloride or Cocaine Base.

**Common Street Names:** Coke; crack; snow; blow; flake; AC; toot; rock; base; nose candy; snort; white horse.

**Distinguishing Characteristics:** Cocaine is an alkaloid (organic base) derived from the coca plant. In its more common form, cocaine hydrochloride or snorting coke is a white to creamy granular or lumpy powder that is finely chopped before use. Cocaine base, rock or crack is a crystalline rock about the size of a small pebble.

**Paraphernalia:** Cocaine Hydrochloride single-edged razor blade; a small mirror or piece of smooth metal; a half straw or metal tube; and a small screw cap vial or folded paper packet containing the cocaine (used for snorting); needles, tourniquets (used for injecting). Cocaine Base crack pipe (small glass smoking device for vaporizing the crack crystal); a lighter, alcohol lamp or small butane torch for heating the substance.

**Method of Intake:** Cocaine Hydrochloride is snorted into the nose, rubbed on the gums or injected into the veins. Cocaine Base is heated in a glass pipe and the vapor inhaled.

**Duration of Single Dose Effect:** One to two hours.

**Detection Time:** Up to two to three days after last use.

**Dependency Level:** Research indicates possible physical dependence. Although there is insufficient evidence for humans, animal studies indicate reverse tolerance, in which certain behavioral effects become stronger with repeated use of cocaine. Psychological dependence on cocaine is known to be very high.

## Signs and Symptoms

**Evidence of Presence of Cocaine:** Small folded envelopes, plastic bags or vials used to store cocaine; razor blades; cut-off drinking straws or rolled bills for snorting; small spoons; heating apparatus.

**Physical Symptoms:** Dilated pupils; runny or irritated nose; profuse sweating; dry mouth; tremors; needle tracks; loss of appetite; hyper excitability; restlessness; high blood pressure; heart palpitations; insomnia; talkativeness; formication (sensation of bugs crawling on skin).

**Behavioral Symptoms:** Increased physical activity; depression; isolation and secretive behavior; unusual defensiveness; frequent absences; wide mood swings; difficulty in concentration; paranoia; hallucinations; confusion; false sense of power and control.

### DID YOU KNOW...

- Many people are not only cocaine users, but also cocaine dealers
- Three million Americans use cocaine on a regular basis
- Cocaine today is more potent, more addictive and more lethal than ever before
- A cocaine "high" last only about 5 to 20 minutes
- Cocaine use may cause severe "mood swings" and irritability
- You need more and more cocaine each time you want a "high"
- Cocaine increases your blood pressure and heart rate—particularly dangerous if you have a heart condition.
- One use can cause death!

## Effects of Cocaine Use on the Individual

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### General Health Effects

- Research suggests that regular cocaine use may upset the chemical balance of the brain. As a result, it may speed the aging process by causing irreparable damage to critical nerve cells. The onset of nervous system illnesses such as Parkinson's disease could also occur.
- Cocaine use causes the heart to beat faster and harder and rapidly increases blood pressure. In addition, cocaine causes spasms of blood vessels in the brain and heart. Both effects lead to ruptured vessels, causing strokes and heart attacks.
- Strong psychological dependency can occur with one hit of crack. Mental dependency usually occurs within days of using crack, or within several months of snorting coke. Cocaine causes the strongest psychological dependency of any known drug.
- Treatment success rates are lower than those of other chemical dependencies
- Destruction of nasal tissue
- Illnesses from needle use
- Nutritional Deficiency
- Cocaine is extremely dangerous when taken with depressant drugs. Death due to overdose is rapid. The fatal effects of an overdose are not usually reversible by medical intervention. The number of cocaine overdose deaths in the U.S. has tripled in the last four years.

### Effects on Mental Performance:

- Paranoia and hallucinations
- Hyper excitability and overreaction to stimulus
- Difficulty in concentration
- Wide mood swings
- Withdrawal leads to depression and disorientation
- Decreased appetite

### Effects on Driver Performance and Heavy Machinery Operation:

Cocaine use results in an artificial sense of power and control, which leads to a sense of invincibility. Lapses in attention and the ignoring of warning signals brought on by cocaine use greatly increase the potential for accidents. Paranoia, hallucinations and extreme mood swings make for erratic and unpredictable reactions while driving.

The high cost of cocaine frequently leads to workplace theft and/or dealing. Forgetfulness, absenteeism, tardiness and missed assignments can translate into lost business.

### Overdose Effects

- Agitation
- Increase in body temperature
- Hallucinations
- Convulsions
- Death

### Withdrawal Syndrome

- Apathy
- Long periods of sleep
- Irritability
- Depression
- Disorientation

# FACTS ABOUT DRUGS

## COCAINE

### WHAT IT IS

**Names:** Cocaine, rock cocaine, coke, “C”, flake, snow, stardust, Peruvian marching powder, The devil’s dandruff.

**Type:** Central nervous system stimulant.

**Forms:** Leaf of coca bush (ritual form)  
White crystalline powder as cocaine hydrochloride.  
Vapors as cocaine freebase.  
Dried lump of combined baking soda or ammonia and cocaine processed as freebase crack” or “rock.”  
Solution diluted in water.

**Combinations:** With heroin, “dynamite,” “speedball” or “whiz-bang”; with morphine, also “whiz-bang.” Dissolved in liquid and drunk.

**Usage:** Chewed (leaves), smoked (paste and freebase lumps), Sniffed or “snorted” into mucous membrane of nose (powder and vapor), Applied to mucous membranes of mouth, vagina, rectum (powder), and injected into bloodstream (in a water solution).

**Legal Status:** Illegal unless used by licensed physicians as a local anesthetic. Also used in Brompton’s cocktail to treat terminal cancer patients.

### WHAT IT FEELS LIKE

Orgasmic “rush”, then energetic, alert, with no need for food or sleep, talkative or peaceful, self-confident, in command, quick, agitated, anxious, unhappy.

### WHAT IT DOES

**To Your Mind:** Stimulates rapid, intense general euphoria.

**To Your Body:** Slows then increases heart rate and blood pressure, constricts blood vessels, increases breathing rate, dries mouth, dilates pupils, exaggerates movements.

**Special Characteristics:** A Cocaine “spree” may lead to a “crash” with severe depression, lethargy, hunger. Freebasing results in severe burn accidents.

### HOW IT CAN HURT YOU

Shaking, muscle twitches, seizures, severe anxiety, compulsive repetition of movements. Paranoia, psychosis, heart related effects, nausea and vomiting. Changes in breathing, increase in body temperature, cold sweat, dramatic mood swings. Hallucinations, sensation of insects crawling under skin and other continuing psychotic effects. Eating and sleeping disorders, impaired sexual performance, destruction of noise tissue, ongoing respiratory problems, needle infections such as endocarditis, hepatitis and AIDS.

Death from overdose and heroin combination, suicide, homicide, fatal accidents while under the influence. Snorting can be fatal.

### WHEN TO GET HELP

- Do you use cocaine regularly?
- Do you freebase or inject cocaine?
- Do you use it in the morning or at regular intervals?
- Do you lie about how much cocaine you use?
- Are you spending more on cocaine than you can afford?
- Are you having problems at work or school or with family and friends?
- Do you try to “buy” friendship or companionship with cocaine?

One “yes” and your common sense tells you it’s time to get smart about drugs and the rest of your life.

**Fact:** Cocaine may be the most addictive drug of all.

# Amphetamines

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Drivers have used stimulants to help them stay awake while driving. However, the alertness does not help individuals improve productivity or overcome fatigue. Previously prescribed for weight loss and mood elevation, physicians now only prescribe amphetamines for Narcolepsy.

**Classification:** Stimulant. Includes Amphetamine and Methamphetamine. Trade Names include: Desoxyn; Dexapex; Fastin; Vasotilin; and Dexedrine.

**Common Street Names:** uppers; speed; bennies; dexies; crystal; Black Beauties; Christmas Trees; white crosses; mollies; Bam; crank; meth.

**Distinguishing Characteristics:** Amphetamines are yellowish crystals in their pure form. They are manufactured in a variety of forms including pill, capsule, tablet, powder and liquid. Amphetamine (speed) is sold in counterfeit capsules or as white, flat, double scored Amini bennies. Methamphetamine is often sold as a creamy white granular powder or in lumps wrapped in aluminum foil or sealable plastic bags.

**Paraphernalia:** Needles, syringes, and rubber tubing for tourniquets, used for the injection method.

**Methods of Intake:** The most common forms of amphetamines are pills, tablets or capsules which are ingested. The less frequent forms, liquid and powder, are injected or snorted.

**Duration of Single Dose Effect:** two to four hours.

**Detection Time:** one to two days after use.

**Dependency Level:** Psychological dependence on amphetamines is known to be high. Physical dependence is possible.

## Signs and Symptoms

**Evidence of Presence of Amphetamines:** most frequently pills, capsules or tablets; envelopes, bags, vials for storing the drug; less frequently syringes, needles, tourniquets.

**Physical Symptoms:** dilated pupils; sweating; increased blood pressure; palpitations; rapid heartbeat; dizziness; decreased appetite; dry mouth, headaches; blurred vision; insomnia; high fever (depending on the level of the dose).

**Behavioral Symptoms:** confusion; panic; talkativeness; hallucinations; restlessness; rapidly changing topics; cockiness; risk-taking behaviors; absenteeism; anxiety; moodiness; false sense of confidence and power; amphetamine psychosis which might result from extended use (see health effects).

### DID YOU KNOW...

- Due to the high abuse potential and alternate treatments, there has been a decline in the prescription use of amphetamines.
- Many people abuse prescribed amphetamines for their non-therapeutic effects
- Positive tests for amphetamines are often the result of inappropriate sharing of prescriptions

## Effects of Amphetamine Use on the Individual

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### Physical Health Effects

- Regular use produces strong psychological dependence and an increasing tolerance to the drug.
- High doses may cause toxic psychosis resembling schizophrenia. Users may see, hear and feel things that do not exist (hallucinations), have irrational thoughts or beliefs (delusions) and feel as though people are out to get them (paranoia).
- The euphoria increases impulsive and risk-taking behavior, such as bizarre and violent acts.
- Intoxication may induce a heart attack or stroke due to spiking of blood pressure.
- Chronic use may cause heart and brain damage due to severe capillary blood vessels.
- Long-term heavy use can lead to malnutrition, skin disorders, ulcers and various diseases that come from vitamin deficiencies.
- Lack of sleep, weight loss and depression also result from regular use.
- Users who inject drugs intravenously can get serious and life-threatening infections (e.g., lung or heart disease, kidney damage, AIDS) from non-sterile equipment or contaminated self-prepared solutions.

### Effects on Mental Performance:

- Anxiety, restlessness
- Moodiness
- False sense of power

*Large doses over long periods of time can result in:*

- Hallucinations
- Delusions
- Paranoia
- Brain Damage

### Effects on Driver Performance and Heavy Machinery Operation:

Amphetamines cause a false sense of alertness and potential hallucinations, which can result in risky driving behavior and increased accidents. Drivers who fail to get sufficient rest may use the drug to increase alertness. However, although low doses of amphetamines will cause a short-term improvement in mental and physical functioning, greater use impairs functioning. Physical fatigue and depression characterize the hangover effect of amphetamines, which make operation of equipment or vehicles dangerous.

### Overdose Effects

- Agitation
- Increase in body temperature
- Hallucinations
- Convulsions
- Death

### Withdrawal Syndrome

- Apathy
- Long term periods of sleep
- Irritability
- Depression
- Disorientation

# FACTS ABOUT DRUGS

## AMPHETAMINES

### WHAT IT IS

**Names:** Amphetamine, speed, methamphetamine, bennies, black beauties, copilots, crystal, dexies, eye openers, lid poppers, meth, pep pills, uppers, wake-ups, Dexedrine, Desoxyn.

**Type:** Central Nervous system stimulant.

**Forms:** White crystalline powder, soluble in water, slightly soluble in alcohol (methamphetamine is freely soluble in water and alcohol). Off-white to yellow coarse powder, crystals and chunks. Capsules or tablets of various colors.

**Combinations:** With barbiturates, “goofballs”; with methamphetamines or cocaine and heroin, “speedballs”; with LSD and PCP.

**Usage:** Swallowed (capsules, tablets), injected into bloodstream (solution), sniffed (powder), “snorted.”

**Legal Status:** Illegal except for licensed medical treatment of narcolepsy, childhood behavior disorders, Parkinsonism, epilepsy, hypotensive states.

### WHAT IT FEELS LIKE

Rush of pleasure similar to orgasm or electric shock (after injection). Reduced appetite, increased alertness, euphoria, excitement, creativity, power, altered sex drive, restlessness, dizziness, confusion, depression, irritability, paranoia, distorted perceptions, and visions.

### WHAT IT DOES

**To Your Mind:** Over stimulates central nervous system.

**To Your Body:** Increase heart rate, breathing rate. Effects irregular heartbeat and breathing. Dry mouth, foul taste, diarrhea, appetite suppression,

retraction of gum tissue, impotence, increase urine output, fainting, sweating, fever, convulsions, coma, hemorrhage.

### HOW IT CAN HURT YOU

Chronic sleep problems, nervousness, nutritional deficiency, skin rash, high blood pressure. Paranoia, chronic amphetamine psychosis, decrease emotional control, severe depression. Needle related hepatitis, infection, AIDS, collapsed and blocked blood vessels, overwork of the body systems.

Death from suicide induced by psychic depression, collapse of blood vessels in brain, heart failure, extreme fever, violent accidents and murders.

Dependence arises from tolerance and cross-tolerance, and taking additional drug to stop withdrawal effects, risking return of psychosis.

### WHEN TO GET HELP

- Do you use amphetamines regularly?
- Do you think about how and when you are going to use amphetamines again?
- Is your work or school performance affected by your drug use?
- Do you spend more on amphetamines than you can afford?
- Are you having problems with family and friends?
- Do you use drugs in addition to amphetamines?

One “yes” and your common sense tells you it’s time to get smart about drugs and the rest of your life.

**Fact:** Amphetamine users reach a plateau where no pleasure is possible.

# Opioids

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These drugs, classified as narcotics, are widely used medically to manage pain, diarrhea and coughs. They are injected, swallowed or sniffed illicitly to produce euphoria.

**Classification:** Natural and natural derivatives include: opium, morphine, codeine and heroin (semi-synthetic). Synthetics include: meperidine (Demerol); oxycodone (Numorphan); and oxycodone (Percodan).

**Common Street Names:** Big M, micro, dots, horse; "H"; junk; smack; scag; Miss Emma; dope; China White.

**Distinguishing Characteristics:** Because of the variety of compounds and forms, opioids are more difficult to describe in terms of form, color, odor and other physical characteristics. Opium and its derivatives can range from dark brown chunks to white crystals or powders. Depending on the method of intake, opioids may be in powder, pill or liquid form.

**Paraphernalia:** Needles; syringe caps; eyedroppers; bent spoons; bottle caps; rubber tubing (used in the preparation for and injection of the drug).

**Method of Intake:** Opioids may be taken in pill form, smoked or injected, depending upon the type of narcotic used.

**Duration of Single Dose Effect:** Three to six hours.

**Detection Time:** Up to two days.

**Dependency Level:** Physical and psychological dependence on opioids are known to be high. Codeine dependence is moderate.

## Signs and Symptoms

**Evidence of Presence of Drug:** Besides the paraphernalia listed above, the following items may be present: foil, glassine envelopes, or paper bindles (packets for holding drugs); balloons or prophylactics used to hold heroin; bloody tissues used to wipe the injection site; and a pile of burned matches used to heat the drug before injection.

**Physical Symptoms:** Constricted pupils; sweating; nausea and vomiting; diarrhea; needle marks or tracks; wearing long sleeves to cover tracks; loss of appetite; severe constipation; slurred speech; slowed reflexes; depressed breathing and heartbeat; and drowsiness and fatigue.

**Behavioral Symptoms:** Mood swings; impaired coordination; depression and apathy; stupor; euphoria.

### DID YOU KNOW...

- Poppy seeds contain trace amounts of morphine and codeine
- Positive opioids tests are often the result of inappropriate sharing of codeine prescriptions
- After years of declining use, heroin is gaining popularity in some areas

## Effects of Opioid Use on the Individual

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### Physical Health Effects

- Intravenous (IV) needle users have a high risk for contracting hepatitis and AIDS due to sharing of needles.
- Because opioids increase tolerance to pain, individuals may underestimate the extent of injuries, leading to a failure to seek medical attention after an accident.
- Because opioids effects are multiplied when used in combination with other depressant drugs or alcohol, overdoses are more likely.

### Effects on Mental Performance:

- Depression
- Apathy
- Wide mood swings
- Slowed movement and reflexes

In addition, the high physical and psychological dependence level of opioids compounds the impaired functioning.

### Effects on Driver Performance and Heavy Machinery Operation:

The apathy caused by opioids can translate into an “I don't really care” attitude toward performance, sometimes characterized by frequent absences. The physical effects and the depression, fatigue and slowed reflexes impede the reaction time of the driver, raising the potential for accidents. Although opioids have a legitimate medical use in alleviating pain, workplace use may cause impairment of physical and mental functions.

### Overdose Effects:

- Slow and shallow breathing
- Clammy skin
- Convulsions
- Coma
- Possible death

### Withdrawal Syndrome:

- Watery eyes
- Runny nose
- Yawning
- Loss of appetite
- Irritability
- Tremors
- Panic
- Cramps
- Nausea
- Chills and sweating

# FACTS ABOUT DRUGS

## OPIOIDS / HEROIN

### WHAT IT IS

**Names:** Heroin, dust, “H,” horse, junk, smack, shit, scag, Mexican mud, China white, black tar.

**Type:** Semisynthetic narcotic pain killer, opioid.

**Forms:** Fine, white crystalline powder, water soluble and bitter tasting.

**Combinations:** With amphetamines, “bombitas,” with cocaine, “dynamite,” “speedball,” “whizbang,” with marijuana, “atom bomb,” “A-bomb.”

**Usage:** Injected (water soluble) into bloodstream, “mainlining.” Under skin, “skin popping,” or into muscle. Sniffing (powder), “snorting.” Smoking (vapor), “chasing the dragon.” Swallowing (powder wrapped in tissue or bread).

**Legal Status:** Illegal in U.S. for all uses. Legal in some countries for extreme cancer or other pain and for regulated maintenance of addicted users.

### WHAT IT FEELS LIKE

An immediate, powerful orgasmic rush, followed by peacefulness, lack of pain, euphoria, leading to drowsiness (a “nod), inactivity, inability to concentrate, small pupils, droopy eyelids, limited vision, slowed breathing, nausea and vomiting, lack of appetite, constipation, reduced sex drive, increased urination, itching or burning on skin, low body temperature, sweating.

### WHAT IT DOES

**To Your Mind:** Metabolizes into morphine and depresses central nervous system, suppressing pain sensation and relieving anxiety.

**To Your Body:** Affects both gastrointestinal and respiratory systems, causing constipation and slow breathing.

**Special Characteristics:** Repeated use develops tolerance to nausea and vomiting. Then, tolerance

to desired affects also develops, requiring increase dosage.

### HOW IT CAN HURT YOU

Drowsiness may progress to coma. Irregular breathing and heartbeat, respiratory and cardiac arrest. Slowed breathing may lead to oxygen starvation and brain damage. Needle infection may cause collapsed veins, tetanus, hepatitis, endocarditis or Acquired Immune Deficiency Syndrome (AIDS).

Death results from overdose which brings on lung and heart complications. Overdose can result from purchase of impure and/or unpredictable street drugs.

Dependence develops even when “chipping,” using heroin infrequently and in low doses. The tolerance which develops causes progression to higher doses. Fear of withdrawal creates dependence in itself. Withdrawal and abstinence reduce tolerance for only a brief period. Psychological dependence can be prolonged after withdrawal with depression, anxiety, inability to sleep, lack of appetite, restlessness and craving for the drug.

### WHEN TO GET HELP

- Do you think about how and when you’re going to use heroin again?
- Is your work or school performance affected by your drug use?
- Are you having problems with family and friends?
- Do you spend more on heroin than you can afford?
- Do you use drug in addition to heroin?

One “yes” and your common sense is all it takes to know it’s time to get smart about heroin and the rest of your life.

**Fact:** Of all similar drugs, you are most likely to become addicted to heroin.

# Phencyclidine (PCP)

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Phencyclidine (PCP) was originally developed as an anesthetic, but the adverse side effects prevented its use except as a large animal tranquilizer. Phencyclidine acts as both a depressant and a hallucinogen, and sometimes as a stimulant. It is abused primarily for its variety of mood-altering effects. Low doses produce sedation and euphoric mood changes. The mood can change rapidly from sedation to excitation and agitation. Larger doses may produce a coma-like condition with muscle rigidity and a blank stare with the eyelids half-closed. Sudden noises or physical shocks may cause a "freak-out," in which the person has abnormal strength, extremely violent behavior, and an inability to speak or comprehend communication.

**Classification:** Phencyclidine.

**Common Street Names:** Angel dust, dust, peace pills, hog, killer weed, super grass, embalming fluid, rocket fuel.

**Distinguishing Characteristics:** PCP is commonly sold as a creamy granular powder. It is either brown or white and often packaged in one-inch-square aluminum foil or folded paper packets. It is occasionally sold in capsule, tablet or liquid form. It is sometimes combined with procaine, a local anesthetic, and sold as imitation cocaine.

**Paraphernalia:** Foil or paper packets; stamps (off which PCP is licked); needles, syringes and tourniquets (for injection); leafy herbs (for smoking).

**Method of Intake:** In pill, capsule or tablet form, PCP may be ingested. It is commonly injected as angel dust. It may be smoked or snorted when applied to leafy materials or combined with marijuana or tobacco.

**Duration of Single Dose Effects:** Days.

**Detection Time:** Up to eight days.

**Dependency Level:** Psychological dependence on PCP is known to be high. Physical dependence is unknown.

## Signs and Symptoms

**Evidence of Presence of PCP:** packets; stamps; injection paraphernalia; herbs.

**Physical Symptoms:** dilated or floating pupils; blurred vision; nystagmus (jerky eye movement); drooling; muscle rigidity; profuse sweating; decreased sensitivity to pain; dizziness; drowsiness; seizures; arms and legs feel larger than usual; impaired physical coordination (e.g., drunken-like walk, staggering); severe disorientation; rapid heartbeat.

**Behavioral Symptoms:** anxiety; panic/fear/terror; aggressive/violent behavior; distorted perception; severe confusion and agitation; disorganization; mood swings; poor perception of time and distance; poor judgment; auditory hallucinations; flashbacks; prolonged anxiety; social withdrawal; motor incoordination; slurred speech; numbness of extremities; depression

### DID YOU KNOW...

- A positive urine PCP result always indicates an illicit drug source
- Street users may be unaware of their own PCP ingestion because the drug often is sold under other names
- PCPs toxicity has given it a bad reputation even among regular drug users

## Effects of PCP Use on the Individual

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*There are four phases to PCP abuse:*

- The first phase is acute toxicity. It can last up to three days and can include combativeness, catatonia, convulsions and coma. Distortions of size, shape and distance perceptions are common.
- The second phase which does not always follow the first is a toxic psychosis. Users may experience visual and auditory delusions, paranoia and agitation.
- The third phase is a drug-induced schizophrenia that may last a month or longer.
- The fourth phase is PCP-induced depression. Suicidal tendencies and mental dysfunction can last for months.

### Physical Health Effects

- Potential is high for overdose emergencies and other accidents due to the combination of the extreme mental effects and the anesthetic effect on the body.
- Because other depressant drugs such as alcohol aggravate the effects of PCP such, the likelihood of an overdose reaction is high.
- PCP-induced hallucinations may be misdiagnosed as LSD induced. The standard treatment for LSD-induced hallucinations is Thorazine, which when administered with PCP can be fatal.

### Effects on Mental Performance

- Irreversible memory loss
- Personality changes
- Thought disorders
- Hallucinations

### Effects on Driver Performance and Heavy Machinery Operation:

Distortions in perception, and potential visual and auditory delusions, make driver performance unpredictable and dangerous. PCP use can cause drowsiness, convulsions, paranoia, agitation or coma, all of which are obviously dangerous to driving.

### Overdose Effects:

- Longer more intense trip episodes
- Psychosis
- Coma
- Possible Death

### Withdrawal Syndrome:

None reported

# FACTS ABOUT DRUGS

## PCP

### WHAT IT IS

**Names:** Phencyclidine, PCP, peace pill, angel dust, crystal, hog, horse tranquillizer, tic, zoot.

**Type:** Dissociative anesthetic.

**Forms:** White, crystalline powder (may be colored as sold on the street), soluble in water or alcohol, pills or capsules.

**Combinations:** With LSD with marijuana, tobacco, or parsley as “supergrass,” “killer weed.”

**Usage:** Swallowed as liquid, tablet, capsule. Sniffed as powder, “snorted.” Smoked as sprinkle for marijuana or parsley (joints), tobacco (sherms), mint. Injected into bloodstream.

**Legal Status:** Illegal. (Discontinued veterinary use.)

### WHAT IT FEELS LIKE

Unpredictable. Various sensations including dissociation from the environment, euphoria, hallucinations, relaxation, distorted time, space and body sensations, feelings of floating and weightlessness, inability to think or concentrate, anxiety, paranoia, various auditory and visual experiences, as with LSD.

### WHAT IT DOES

**To Your Mind:** Depresses and stimulates central nervous system.

**To Your Body:** Alters speech, coordination, dexterity, and vision. Induces dizziness and drowsiness. Increases heart rate, blood pressure, breathing rate, urinary output. Induces sweating and vomiting. Causes jerky eye movement that can last for months after a single dose.

**Special Characteristics:** PCP is often sold as a substitute for other drugs, causing panic in unsuspecting users.

### HOW IT CAN HURT YOU

Loss of sense of pain, psychic experiences, states of panic and fear of death lasting for several days. Bizarre, compulsive and violent behavior, involuntary eye movement, rigid muscles, loss of gag and corneal reflexes, Arching of the body, coma, alternating high and low blood pressure, irregular heart beat, irregular breathing, severe nausea and vomiting, alternating high and low body temperature. Loss of memory and thought process, ongoing speech problems, depression, toxic psychosis as aggressive and assaultive behavior, hallucinations.

Death from stopped breathing, convulsions, brain hemorrhage, kidney failure, drug combinations, fatal accidents. Murder, suicide, self mutilation, and drowning from swimming under the influence to enhance floating sensation. Dependence arises as tolerance develops. Use is often in “runs” of two or three days, with disorientation and depression after withdrawal.

### WHEN TO GET HELP

- Do you use PCP at all?
- Do you think about how and when you’re going to use PCP again?
- Is your work or school performance affected by your drug use?
- Are you having problems with family and friends?
- Do you spend more on PCP than you can afford?
- Do you use other drugs in addition to PCP?

One “yes” and your common sense tells you it’s time to get smart about drugs and the rest of your life.

**Fact:** Even in low doses, PCP produces harmful psychological effects. One dose may produce physical effects that last for months.

# Alcohol

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Federal Regulations define alcohol as the intoxicating agent in beverage alcohol, ethyl alcohol, or other low molecular weight alcohols including methyl and isopropyl alcohol. Alcohol produces feelings of increased sociability, reduced anxiety and altered senses. Alcohol decreases brain and spinal cord activity, is an irritant to the body and affects the control centers of the brain.

**Classification:** Sedative (depressant).

**Distinguishing Characteristics:** Ethanol/alcohol is the intoxicating agent present in beverage alcohol. Alcohol is a transparent, colorless, odorless and volatile liquid. It is obtained by fermentation of carbohydrates with yeast, is widely available and its use is legal in the United States. Alcohol is present in beverages such as beer, wine liqueurs, distilled spirits and in some over-the-counter and prescription medications.

**Duration of Intoxication:** The body metabolizes alcohol at a rate of 1 ounce per hour.

**Intake:** 1 oz 100 proof whiskey = one 12 oz beer = 5 oz glass of wine.

**Detection time:** 1-24 hours.

**Dependency Level:** Physical and psychological dependence can be high.

## Signs and Symptoms

**Physical Symptoms:** Over reaction to environmental stimulation; decline in ability to concentrate; decline in attention span; disinhibition; decline in ability to abstract, think, conceptualize; decline in stress tolerance; confusion; slurred speech; bloodshot watery eyes; flushed face; excessive sweating; decline in personal appearance; involuntary sudden movement of eyes; lack of coordination; impaired short and/or remote memory; double vision, passing out, staggering, dizzy, alcoholic breath.

**Behavioral Changes:** Mood swings, frequent conflicts with others, negative reactions to criticism, exaggerated emotions, isolation.

### Job Performance Changes

- Increased absences/tardiness rationalizations that sound false
- Frequent accidents
- Decline in quality/quantity of work missing deadlines
- Lack of cooperation
- Poor concentration/judgment
- Lack of motivation
- Long lunches/breaks

## Effects of Alcohol Use on the Individual

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### General Health Effects

- Continued destruction of brain cells
- Psychological damage
- Increased/decreased tolerance
- Cirrhosis of the liver
- Toxic psychosis
- Neurologic damage
- Addiction
- Loss of appetite
- Vitamin deficiency
- Stomach inflammation
- Infections
- Skin problems
- Sexual impotence

### Withdrawal Syndrome:

- Headache
- Rapid heartbeat
- Hypertension
- Tremor
- Fever
- Difficulty with breathing
- Insomnia
- Increased REM sleep
- Decreased deep sleep
- Loss of appetite
- Nausea
- Vomiting
- Agitation
- Anxiety
- Restlessness
- Irritability
- Distractibility
- Poor concentration
- Impaired memory
- Impaired judgment
- Hallucinations
- Seizures
- DTs
- Possibly convulsions and death

# FACTS ABOUT DRUGS

## ALCOHOL

### WHAT IT IS

**Names:** Ethyl (beverage) alcohol, ethanol, booze.

**Type:** Central nervous system depressant.

**Forms:** Clear absolute alcohol liquid diluted and/or blended as wine, beer, liquor (distilled spirits) or liqueur.

**Usage:** Swallowed in drinks which may be blended or mixed with other spirits or non-alcoholic substances.

**Legal Status:** Legal, regulated by various state laws for purchase eligibility and distribution location.

**Other Forms:** Small amounts used in products such as mouthwash and cough medicine. Nonbeverage isopropyl and methyl alcohols are “alley juice” drinks for street alcoholics and teenagers.

### WHAT IT FEELS LIKE

Initial relaxed and/or sociable feeling may be replaced with depression, anger, loss of control, and drowsiness. Effects vary with individual.

### WHAT IT DOES

**To Your Mind:** Lowers ability of brain to control behavior and impairs your ability to perform motor skills such as driving.

**To Your Body:** Lessens ability to move or speak effectively.

**Special Characteristics:** Milk can retard absorption. Food or drink does not change ongoing effects. One “shot” equals one glass of wine or beer. Effects vary by size of person related to blood absorption capacity, amount of food in stomach, built up tolerance level and other factors. There is no known cure for the next day withdrawal “hangover.”

### HOW IT CAN HURT YOU

Memory loss, hypothermia, decreased sex drive, impotence, menstrual problems, liver and kidney damage. General stomach and intestine damage, lack of ability to feel pain, coma, susceptibility to alcohol related diseases, anxiety, insomnia, socially unacceptable behavior. Brain damage, affected walk, depletion of vitamins and nutrients.

Death from inability to breathe, heart failure, severe withdrawal effects, interaction with other drugs, driving while under the influence, suicide. Aspiration of vomit leading to asphyxiation or pneumonia is not uncommon.

Dependence can be both emotional and physical. Unborn children of drinking mothers may be affected by mental retardation, deformities and heart defects.

### WHEN TO GET HELP

- Do you think you're more witty and attractive when you drink?
- Do you think about how and when you're going to drink again?
- Is your job performance affected by your drinking?
- Has your health changed?
- Are you spending more money on booze?
- Do family and friends mention your drinking to you?
- Do you stop and start drinking to test yourself?
- Are you a weekend binge drinker?
- Have you been stopped for drunk driving?

One “yes” and your common sense is all it takes to know it's time get smart about alcohol and the rest of your life.

**Fact:** It is estimated that one in 20 Americans has an alcohol dependency problem. Of all the drugs in the world, alcohol and tobacco remain the two top killers.

# Definition of Alcoholism

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Alcoholism is a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. The disease is often progressive and fatal. It is characterized by continuous or periodic impaired control over drinking, preoccupation with the drug alcohol, use of alcohol despite adverse consequences, and distortions in thinking, most notably denial.

*Source: 1990 The American Society of Addiction Medicine and the National Council on Alcoholism and Drug Dependence.*

## Who is an Alcoholic?

- May drink continuously
- Or not drink for months or years
- When they start to drink, they can't stop
- Heavy drinkers linked to alcoholism, but many can and do stop
- Alcoholic Hallmark: A consistent lack of control over drinking
- When an alcoholic drinks, ALCOHOL is most important

## Signs of Alcoholism

- Is drinking affecting your job?
- Are you having family problems related to your drinking?
- Do people notice your drinking?
- Have you developed an increased tolerance?
- Do you make drinking rules then break them?
- Do you forget things that happen while you drink?
- Do you drink to relieve stress?
- Do you drink alone?
- Are you uncomfortable at non-drinking social events?

# Definition of Substance Abuse

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A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following occurring within a 12-month period:

1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions or expulsions from school; neglect of children or household).
2. Recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use).
3. Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct).
4. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with a spouse about consequences of intoxication, physical fights).

*American Psychiatric Press Textbook of Substance Abuse Treatment A synopsis of the DSM-IV Diagnostic and Statistical Manual of Mental Disorders.*

# Definition of Substance Dependence

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A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring anytime in the same 12-month period:

1. **Tolerance**, as defined by either of the following:
  - A. a need for markedly increased amounts of the substance to achieve intoxication or desired effect.
  - B. markedly diminished effect with continued use of same amount of the substance.
2. **Withdrawal**, as manifested by either of the following:
  - A. the characteristic withdrawal syndrome for the substance.
  - B. the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms.
3. The substance is often taken in **larger amounts** or over a longer period than intended.
4. There is a persistent desire or unsuccessful **efforts to cut down** or control substance use.
5. Much **time is spent** in activities necessary to **obtain the substance** (e.g., visiting multiple doctors or driving long distances), or recover from its effects.
6. Reducing or giving up important social, occupational, or recreational **activities** because of substance use.
7. **Continued substance use despite** knowledge of having a persistent or recurrent **physical or psychological problem** that was likely caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that alcohol consumption made an ulcer worse).

*American Psychiatric Press Textbook of Substance Abuse Treatment A synopsis of the DSM-IV Diagnostic and Statistical Manual of Mental Disorders.*

# When to Conduct Drug and/or Alcohol Testing

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On January 1, 1996, the U.S. Department of Transportation began requiring all employers with employees holding Commercial Driver Licenses who operate a commercial motor vehicle in inter- or intrastate commerce to participate in a drug and alcohol program. A commercial motor vehicle is defined a) as a vehicle with a gross vehicle weight of 26,001 pounds or greater; b) is designed to transport 16 or more passengers, including the driver; or c) is used in the transportation of hazardous materials. This includes federal, state, local governments, owner-operators, church and civic organizations.

The Department of Transportation requires that drug and alcohol tests be performed under the following conditions as defined in 49 Code of Federal Regulations Part 40. Note: Refusal to submit to the following tests is treated as a positive test result.

## ***Pre-employment***

NOTE: The U.S. Department of Transportation has suspended the requirement for pre-employment alcohol testing. The Department of Transportation has requested a Congressional repeal of the pre-employment alcohol testing provisions in the Omnibus Transportation Act of 1991.

## ***Random***

## ***Reasonable suspicion***

## ***Return to duty***

## ***Follow-up***

## **Pre-Employment Testing**

A pre-employment drug test must be performed on each applicant to whom an offer is extended. A negative drug test result must be obtained for new employees prior to their beginning safety-sensitive duties.

*EXCEPTION: If an employee participated in a testing program within the previous 30 days AND was tested within the last six months, OR was in a random testing pool for 12 months, AND that the employer ensures, through written verification from previous known employers that there are no violations of the controlled substance use rule within the previous six months. If exception applies, the employer must verify participation. If a part-time driver is in another random drug testing pool, the driver's employer must verify every six months that the driver participates in a testing program.*

## **Post-Accident Testing**

A post-accident breath alcohol test and urine drug test must be performed as soon as possible following a reportable accident. A reportable accident is defined as an occurrence where:

1. The accident involved a fatality, regardless of whether the driver was culpable or at fault;  
**or**
2. The commercial motor vehicle driver was issued a citation for a moving traffic violation **and**; the accident resulted in a vehicle being inoperable and having to be towed;  
**or**
3. The commercial motor vehicle driver was issued a citation for a moving traffic violation **and**; the accident involved bodily injury to a person who because of the injury required immediate medical treatment away from the scene of the accident.

*(continued)*

If the Breath Alcohol Test is not conducted within two hours of the accident, the employer must document the reasons for non-compliance. If the **breath alcohol test** is not administered **within eight hours** the employer should cease attempts to conduct the test and document the reasons for non-compliance. If a **urine drug test** specimen is not collected **within 32 hours** after the accident, the employer should then cease attempts to conduct the test and document the reasons for non-compliance. **NOTE: Law Enforcement and Hospital Officials are not often versed in the DOT regulations, and therefore are not responsible for determining when DOT regulated post-accident tests are to be performed. DOT Regulations must be consulted.** The exception, however, is that if a law enforcement official independently deems it lawfully necessary to conduct a breath alcohol test based upon reasonably suspicious behavior, that test is sufficient, provided that such test conforms to applicable law enforcement requirements and that the results of the test are obtained by the employer.

## Random Testing

- Computerized random drug and alcohol testing must be conducted on an unannounced basis and spread reasonably throughout the year.
- The sampling process must be such that each driver has an equal chance of being tested at every random selection.
- The number of annual employer-conducted random drug tests must equal 50% of the average number of driver positions at the company for drugs, and 10% of the average number of driver positions at the company for alcohol. If employees are enrolled in a consortium, the 50%/10% required testing rate is calculated based on the total number of employees in the consortium pool.
- The alcohol test must be conducted just before, during or just after an employee performs a safety-sensitive function.

## Return to Duty

Whenever an employee has engaged in prohibited conduct related to drugs or alcohol, the employee must submit to a drug and/or alcohol test before returning to duty. The employee may not return to duty to perform safety-sensitive functions until the drug test result is negative and/or the result of the alcohol test is less than .02 alcohol concentration. If the test result is .02 or greater but less than .04 you cannot permit the employee to return to the safety-sensitive function for at least 24 hours or until fit for duty. If the result of the drug test is positive or if the result of the alcohol test is greater than .04, you cannot permit the employee to return to the safety-sensitive function and a Substance Abuse Professional must evaluate the employee.

## Reasonable Suspicion Testing

Reasonable suspicion or for cause drug and alcohol tests must be done whenever an employer has a reasonable suspicion to believe an employee has engaged in prohibited conduct.

1. Determinations must be based on specific, contemporaneous, articulable observations concerning the employee's appearance, behavior, speech or body odors, chronic effects or withdrawal effects.
2. A trained supervisor or company official must make observations.
3. You must remove employees from performing safety-sensitive duties and immediately escort them to a collection facility to submit specimens for drug and alcohol testing.
4. If the testing is not conducted within two hours of the determination, the employer must document the reasons for non-compliance. If the test is not administered within eight hours the employer should cease attempts to conduct the test and document the reasons for non-compliance.
5. The employee may not report for duty or remain on duty until an alcohol test with a result of less than .02 is given or 24 hours has elapsed since the determination of reasonable suspicion.
6. The observations must occur just before, during or just after duty.

## Follow-Up

Employers must perform follow-up drug and alcohol testing on an unannounced basis whenever a Substance Abuse Professional has determined that an employee was in need of assistance. The Substance Abuse Professional determines the number and frequency of tests to be done following return to duty. The employee must have at least six tests in the first 12 months following return to duty. Follow-up testing may be conducted for up to 60 months.

# Explanation of Drug Testing Procedures and Results

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## **Why Drug Test Urine?**

Drug testing done according to federal mandates outlined in 49 Code of Federal Regulations Part 40 requires collecting a fresh urine specimen. Urine is the preferred specimen for drug testing because it can be obtained non-invasively, and because drugs remain present and detectable in the urine for longer periods than they do in the blood.

## **The Collection Procedure**

Urine specimen collection and testing procedures must fully comply with federal mandates. The urine specimen is collected at a designated site, typically a medical facility. A trained collector is present throughout the collection and transfer process to ensure the specimen's integrity. The collector escorts the subject to a private, secure area and gives the subject a collection container, still sealed in its wrapper, in which to collect the specimen. The collector monitors collection but does not view the collection unless there is reason to believe the individual may alter or substitute the specimen.

## **Specimen Integrity**

After the specimen is collected the subject witnesses the sealing of the specimen for transport to the Substance Abuse and Mental Health Services Administration (SAMHSA). A chain of custody form is also completed and signed by the subject and collector. The form documents the integrity of the specimen and the transfer process. The specimen is then sent to the Substance Abuse and Mental Health Services Administration for testing.

## **The Specimen Arrives at the Lab**

From the time the laboratory receives the specimen; it handles and tests the specimen in strict accordance with federal regulations. The lab receives and opens the specimen in an area that is secure - locked and has limited access. The lab inspects the specimen for signs of tampering before pouring off a small sample to perform the test. The laboratory handles only one specimen at a time to ensure the integrity of the specimen.

## **Positive Tests and Confirmation**

If the result is positive, a confirmation test is performed using a more specific method called Gas Chromatography/Mass Spectrometry (GC/MS). The purpose of confirmation testing is to eliminate any false-positive tests that may have resulted from the initial screening process. The results of confirmation testing identify the specific drug compound present and show the concentration of the drug in the specimen. The amount of drug/metabolite found in the specimen is not an indicator of intoxication. Under no circumstances can impairment be inferred based on the results of a drug test. A confirmed positive drug test simply indicates prior use. Higher levels of a drug/metabolite found in a specimen may suggest recent or frequent use, but under no circumstances can impairment be inferred.

## **The Role of the Medical Review Officer (MRO)**

The Substance Abuse and Mental Health Services Administration sends the test result to a Medical Review Officer, a licensed physician who has knowledge of substance abuse disorders. The Medical Review Officer receives and reviews all laboratory DOT drug test results. The MRO verifies and reports all negative results confidentially in writing. If the result is positive, the Medical Review Officer must contact the employee to discuss the result before releasing it to the employer.

# The Medical Review Officer (MRO)

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The Medical Review Officer (MRO) is a licensed physician with knowledge of substance abuse disorders and is usually a private physician retained for this purpose.

## **The role of the MRO is to:**

- Review confirmed positive test results and determine if there is a legitimate medical reason for the individual testing positive.
- Verify confirmed positive laboratory results as negative if a legitimate medical reason for testing positive is determined.
- Verify confirmed positive laboratory results as positive if no legitimate medical reason for testing positive can be determined.
- Receive and review all laboratory DOT drug test results; (the MRO refuses tests results that do not comply with the Federal Regulations).
- Verify and report all negative results in writing.
- Request additional testing when necessary.

## **Positive Tests**

### **Contacting the Individual**

The MRO shall contact the individual directly, on a confidential basis, to determine whether the employee wishes to discuss the test result. Prior to making a final decision to verify a positive test result for an individual, the MRO shall give the individual an opportunity to discuss the test result with him or her.

### **Alternate Explanations for a Positive Test**

In carrying out this responsibility, the MRO shall examine alternate medical explanations for any positive test result. This action may include conducting a medical interview and review of the individual's medical history. The MRO shall review all medical records made available by the tested individual when a confirmed positive test could have resulted from a legally prescribed medication.

### **The MRO is Not Able to Contact the Individual**

If after making reasonable efforts and documenting them, the MRO is unable to reach the individual directly, the MRO shall contact a designated management official who shall confidentially direct the individual to contact the MRO as soon as possible.

### **Reasonable Time and Efforts**

What constitutes a reasonable time and what reasonable efforts must be made are matters for the MRO's judgment, which can vary with the circumstances of different industries or employers. For example, the time,

and the sort of efforts that would be involved, may differ depending on whether the employee involved is a truck driver who is on a cross-country trip, as opposed to a mass transit bus driver who checks into a terminal every morning before starting to drive.

If, after making all reasonable efforts, the designated management official is unable to contact the employee, the employer may place the employee on temporary medically unqualified status or medical leave.

### **Verifying a Test Without Contacting the Individual**

The MRO may verify a test as positive without having communicated directly with the employee about the test in the following ways:

- 1) The employee expressly declines the opportunity to discuss the test;
- 2) The designated employer representative has successfully made and documented a contact with the employee and instructed the employee to contact the MRO, and more than three days have passed since the date the employee was successfully contacted by the designated employer representative,
- 3) Neither the MRO nor the designated employer representative, after making all reasonable efforts, has been able to contact the employee within 30 days of the date on which the MRO receives the confirmed positive test result from the laboratory. (PROPOSED RULE, July, 1995).

### **Reopening of a Non-Contact Verified Test**

The employee may later present information to the MRO documenting that serious illness, injury or other circumstances unavoidably prevented the employee from timely contacting the MRO. The MRO may reopen the verification, allowing the employee to present information concerning a legitimate explanation for the confirmed positive test. If the MRO concludes that there is a legitimate explanation, the MRO can declare the test to be negative.

**Split Specimen Testing**

The Medical Review Officer shall notify the employee who has a confirmed and verified positive test that the employee has 72 hours in which to request a test of the split specimen. The employee's request must be made to the MRO. If the employee requests an analysis of the split specimen within 72 hours of having been informed of a verified positive test, the MRO shall direct, in writing, the laboratory to provide the split specimen to another DHSS-certified laboratory for analysis. If the analysis of the split specimen fails to reconfirm the presence of the drug(s) or drug metabolite(s) found in the primary specimen, or if the split specimen is unavailable, inadequate for testing, the MRO shall cancel the test and report cancellation and the reasons for it to the DOT, the employer and the employee.

**Disposition of the Individual**

Following verification of a positive test result, the MRO shall, as provided in the employer's policy, refer the case to the employer's employee assistance/rehabilitation program, if applicable, or to the management official empowered to take administrative action, or both. *The final disposition of the employee is made by the employer.*

# Explanation of Breath Alcohol Testing Procedures and Results

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## **The Evidential Breath Testing Device and Breath Alcohol Technician**

Alcohol testing performed according to federal mandates outlined in 49 Code of Federal Regulations Part 40, Subpart C requires using evidential breath testing devices approved by the National Highway Traffic Safety Administration for purposes of determining alcohol concentration. Breath alcohol technicians must be trained to proficiency in both the operation of the evidential breath testing devices and the required alcohol-testing procedures as described in the regulations.

## **Where is the Test Performed?**

The breath alcohol test may be performed at a designated medical facility (usually the same place as the urine drug collection) or onsite by the breath alcohol technician. The breath alcohol technician escorts the subject to a private and secure area and explains the test procedure to the subject before doing the test. (For the safety of Breath Alcohol Technicians, some breath alcohol testing sites may require security personnel to be immediately available during reasonable suspicion breath alcohol testing.)

## **The Breath Alcohol Test Procedure**

The breath alcohol technician instructs the subject to blow forcefully into the disposable mouthpiece of the evidential breath testing device. Two breath tests are required to detect if a person has a prohibited alcohol concentration. A screening test is done first. If the result of the screening test is less than .02 alcohol concentration, the result is considered negative and there is no further testing.

## **Positive Tests and Confirmation**

If the result is 0.02 or greater, a second, confirmatory test is conducted. The Breath Alcohol Technician conducts the confirmatory test 15 to 30 minutes after the screening test. The result of the confirmatory test determines what action is to be taken. An employee whose confirmatory test reads a concentration of 0.02 or greater but less than 0.04, Department of Transportation Federal Highway Administration covered operators must be removed from their safety sensitive functions for at least 24 hours, OR until a retest shows that the employee's alcohol concentration has dropped below 0.02. For Department of Transportation Research and Special Programs Administration, Federal Railroad Administration and Federal Transit Administration covered operators whose confirmatory test reads a concentration of 0.02 or greater but less than 0.04, must be removed from their safety sensitive functions for at least 8 hours, OR until a retest shows that the operator's alcohol concentration has dropped below 0.02.

Alcohol concentrations of 0.04 or greater are considered positive and require action as indicated by Federal Regulations and the company's policy.

## **Integrity and Confidentiality**

The employee and the BAT conducting the breath test complete the breath alcohol testing form to ensure that they properly record the results and all necessary documentation. The employee and the breath alcohol technician must both sign and date the form. If the test result is negative, we send it to the employer in a confidential manner. The breath alcohol technician will immediately transmit all confirmatory results .02 or greater and all refusals to test to the employer's designated representative(s) in a confidential manner.

# Questions and Answers

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## **Are drug test accurate?**

Yes, if they are done using the guidelines of the Department of Health and Human Services (DHHS), drug test are very accurate.

## **What can I expect when I go for a drug test?**

When reporting to the test site, you may be asked for a picture identification. After you provide a urine sample, the bottle should not leave your sight until it is sealed with special "evidence" tape. You should sign the label on the container. You will then be asked to sign a record book stating that the sample collected was yours. The specimen is then shipped to a laboratory for testing. If the seal is broken, or if you do not sign the container, a DHHS-certified laboratory will not test the sample.

## **Will I have privacy when giving the sample?**

In most cases, employers ensure your privacy as you give your sample. In some cases, however, someone may need to see you give your sample. For example, if there is reason to believe that an employee has tried to tamper with the sample, another specimen may be collected with someone of the same sex watching to ensure honesty. In some cases, you may be asked to give a sample with someone watching to ensure honesty as part of a follow-up or return-to-work drug test.

## **Who will know the results of the test?**

Confidentiality is very important. Confidentiality means that your drug test results will be kept private, and that only persons who need to know will receive the drug test results. This might be the supervisor, manager, union representative, or someone in the medical or personnel department. Often, employees are asked to sign a release form that states who will receive the test results. A drug test is reported as positive or negative; the amount of the drug(s) found is usually not reported. Confidentiality should also mean that drug test results will not be part of an employee's personnel file. Talk to your manager, supervisor, union representative, or employer to discuss how your organization plans to protect your confidentiality.

## **Will I test positive for drugs if I am around someone who is using drugs, or I eat foods with poppy seeds?**

The Addictions Research Center did a series of studies showing that the chances are very small that you could test positive for marijuana at DHHS cutoff levels after being in a room with marijuana smoke. At most, "trace" levels of the drug might be found, and this would mean a negative test result if using DHHS guidelines. Early results of studies on exposure to cocaine and methamphetamine smoke also suggest that the chances of testing positive under DHHS guidelines are small.

Because poppy seeds contain small amounts of opium, eating food with poppy seeds can cause you to test positive for opioids. MROs are aware of this, and are trained to report the test as positive only if there is also physical evidence of drug abuse.

## **Is drug testing legal?**

Yes, in most cases it is legal for an employer to test employees for drugs. No Federal laws prohibit drug testing at this time; however, some States do prohibit or restrict certain types of drug testing. For more information about your State laws, call your State Attorney General's office. You have the right to know the details of the drug testing policy at your workplace and what your employer expects of you. If you have questions, ask your supervisor, manager, or union steward.

## **Drug testing: What does it mean to you?**

Drug testing is one action an employer can take to see if employees or job applicants have used drugs. Drug tests can identify alcohol, prescription drugs, and illegal drugs in a person's body. Your employer may choose to test for one or all of these substances. Employers begin drug testing to protect their workers and their workplaces from the negative effects of alcohol and other drugs.

## **When could you be testing?**

Below are some of the situations in which your employer may ask employees to take a drug test. Read the drug testing policy for your workplace to make sure you understand the details of the program.

- Pre-Employment Test
- Post-Accident Test
- Random Test
- Reasonable Suspicion
- Return to Duty Test
- Follow-Up Test

# Community Resources for Help with Drug and Alcohol Abuse

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## National

The Center for Substance Abuse Prevention has a help line that can be used for information and referral to treatment programs throughout the United States. The center has materials on the prevention and treatment of substance abuse as well as teaching materials, some free of charge.  
**1-800-662-HELP (662-4357)**

## State

Wisconsin Department of Health Services.  
Division of Care and Treatment Services  
Bureau of Prevention Treatment and Recovery  
1 W. Wilson Street, Room 850  
PO Box 7851  
Madison, WI 53707-7851  
**608-266-2717**

## Madison, Wisconsin

UnityPoint Health Meriter / NewStart  
Addiction Medicine Consultation and  
Evaluation Services  
202 South Park Street  
Madison, WI 53715  
**608-417-6000**  
*Provides Emergency and Detoxification Services,  
Assessments, Medical Consultations*

NewStart  
Outpatient Services  
1015 Gammon Lane  
Madison, WI 53719  
**608-417-8144**  
*Outpatient: Adult and Adolescent, Assessments, Day  
Services, Intervention, Mental Health Services, Employee  
Assistance Service*

## Iowa

For free literature, information, and referral call Iowa  
Substance Abuse Information Center at **855-581-8111**

## Illinois

Prevention First  
Headquarters  
2800 Montvale Drive  
Springfield, IL 62704  
**800-252-8951**

Branch Office-Chicago  
33 West Grand Avenue, Suite 300  
Chicago, IL 60654  
**800-252-8951**

## Minnesota

To receive information and a Directory of Chemical  
Dependency Programs in Minnesota, contact the Community  
Addiction Recovery Enterprise (C.A.R.E.)

3301 7<sup>th</sup> Ave N  
Anoka, MN 55303  
**651-431-5247**