

## **Specific Drugs of Abuse**

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### **Alcohol**

In American society alcohol is a legal drug. Nonetheless, it is a depressant and is the leading drug of abuse. Use of alcohol affects judgment and decision-making abilities, slows down the central nervous system and brain function, and reduces coordination and reflex actions.

#### Signs and symptoms of abuse:

- Dulled mental processes
- Lack of coordination
- Slowed reaction time
- Poor judgement
- Reduced inhibitions

#### Health effects:

- Decreased sexual functioning
- Liver disease
- Increased cancers of the mouth, tongue, pharynx, esophagus, rectum, breast and skin
- Kidney disease
- Ulcers
- Spontaneous abortion
- Birth defects – leading cause of preventable retardation

#### Workplace issues:

- Many employers now test for the presence of alcohol along with other drug testing.
- Consuming alcohol increases the likelihood that a driver or equipment operator will be involved in an accident.
- Low doses of alcohol reduce inhibitions and affect decision making.
- People who would not ordinarily behave in inappropriate ways can be persuaded to change their behavior when they are drinking.
- Often employees are under the influence of alcohol when they make the decision to use drugs.

## **Marijuana**

Marijuana is a derivative of the hemp plant and is illegally used for its intoxicating effects and dreamy state of relaxation and euphoria. All forms of marijuana have negative physical and mental effects. The active ingredient in marijuana is Delta-9-Tetrahydrocannabinol, or THC, and is present in all forms of the drug.

### Signs and symptoms of use:

#### Physical

- Substantial increase in heart rate
- Bloodshot eyes
- Dry mouth and throat
- Increased appetite
- Chronic sore throat

#### Mental

- Impaired or reduced short-term memory and comprehension
- Altered sense of time
- Changed sensory perception--sight, smell, hearing, touch
- Reduced ability to perform tasks requiring concentration and coordination, such as driving a car

### Health effects:

- Emphysema-like symptoms
- Respiratory track and sinus infections
- Lowered immune system response

### Workplace issues:

- Employees who fall under Federal guidelines such as the Department of Transportation's testing regulations are prohibited from using marijuana in any form.
- THC is stored in the body fat and is slowly released over time. Since it is retained in the fat, an employee can test positive many days after use.
- Many employers also have work rules requiring the employee to disclose if he or she is taking any sedating medications that could impact his or her ability to work safely. This rule would apply even in states that have approved the medicinal use of marijuana.
- The use of marijuana definitely would cause fitness-for-duty concerns.

## **Inhalants**

Inhalants are mood-altering substances that are voluntarily inhaled. Most substances used are commercial and household products, such as solvents and aerosols, which are easily obtained and not harmful, if used for the purpose intended and as directed. Because they are common products, inhalants often are a young person's first attempt at "getting high."

### Signs and symptoms of abuse:

Inhaling solvents allows the substance to reach the bloodstream very quickly. Immediate negative effects of include:

- Nausea
- Sneezing
- Coughing
- Nosebleeds
- Fatigue
- Poor coordination
- Loss of appetite

### Health effects:

- Hepatitis
- Brain damage
- Debilitating effects on the central nervous system
- Weight loss
- Fatigue
- Electrolyte imbalance
- Muscle fatigue
- Permanent damage to the nervous system

### Workplace issues:

- Inhalants can severely impair judgment and driving ability.
- They also cause severe disorientation, visual distortion and confusion.
- Some such products may be available in the workplace.

## **Cocaine**

Cocaine is the most potent stimulant of organic origin and the most widely used of the stimulants. Although cocaine has been used in the past as a topical anesthetic, its therapeutic uses have almost been eliminated due to the development of safer anesthetics. Cocaine is a powerfully addictive drug leading to physical and psychological dependence.

### Signs and symptoms of abuse:

- Dilated pupils
- Increased pulse rate
- Elevated blood pressure
- Insomnia
- Loss of appetite
- Tactile hallucinations
- Paranoia
- Seizures
- Anxiety, agitation
- Periods of increased activity followed by fatigue and depression
- Wide mood swings
- Difficulty in concentration

### Health effects:

- Cocaine stimulates the central nervous system. Its immediate effects include dilated pupils and elevated blood pressure, heart rate, respiratory rate and body temperature. Cocaine use can lead to death by cardiac arrest or respiratory failure.
- Cocaine powder is sniffed or snorted. The euphoric high lasts for approximately 30 minutes. Occasional use can cause a stuffy or runny nose, while chronic use can ulcerate the mucous membrane of the nose. Cocaine powder can also be injected into the bloodstream when it is mixed with water. Using contaminated equipment to inject cocaine, or any other substance, can transmit HIV and cause HIV/AIDS, hepatitis and other infection diseases.
- Preparation of freebase, which involves the use of volatile solvents, can result in death or injury from fire or explosion. Inhalation of cocaine fumes from freebasing produces effects that are very fast in onset, very intense and momentary in duration.

- Crack is cocaine that is processed into tiny chips having the appearance of slivers of soap. Crack has become a very popular form of cocaine, since it is inexpensive and relatively easy to use. It is smoked in a pipe or rolled with tobacco in a cigarette. Cocaine can produce psychological and physical dependency, a feeling that the user cannot function without the drug. Many users become extremely depressed when not using the drug, and the craving for the drug is intense. In addition, tolerance develops rapidly.

Workplace issues:

- Employees who fall under Federal guidelines such as the Department of Transportation's testing regulations are prohibited from using cocaine in any form.
- The addictive nature and cost can lead to workplace theft and/or dealing.
- Work performance is erratic with periods of high performance and periods characterized by forgetfulness, absenteeism and missed assignments.

## **Stimulants**

Stimulants are drugs that stimulate the central nervous system and excite bodily activity. Methamphetamine or crank is one of the fastest growing drugs of abuse. These drugs create less intense and less expensive cocaine-like effects in the body.

### Signs and symptoms of abuse:

- Mood changes
- Impaired concentration
- Impaired mental functioning
- Swings between apathy and alertness

### Health effects:

- Increased heart and respiratory rates
- Elevated blood pressure
- Sweating
- Headaches
- Blurred vision
- Dizziness
- Sleeplessness and anxiety
- Rapid or irregular heartbeat
- Tremors
- Poor coordination
- Physical collapse

### Workplace issues:

- Employees who fall under Federal guidelines such as the Department of Transportation's testing regulations are prohibited from using amphetamines without a current prescription.
- The addictive nature and cost can lead to workplace theft and/or dealing.
- Work performance is erratic with periods of high performance and periods characterized by forgetfulness, absenteeism and missed assignments.

## **Depressants**

A depressant is a drug that depresses the central nervous system, resulting in sedation and a decrease in bodily activity. Depressants, taken as prescribed by physicians, can be beneficial for the relief of anxiety, irritability, stress and tension.

### Signs and symptoms of use:

- Slurred speech
- Staggered walk
- Altered perception
- Respiratory depression
- Coma and death

### Health effects:

- The use of depressants can cause both physical and psychological dependence. Regular use over time may result in a tolerance to the drug, leading the user to increase the quantity consumed.
- The main classes of medical depressants are barbiturates and benzodiazepines. When regular users suddenly stop taking large doses, they can develop withdrawal symptoms ranging from restlessness, insomnia and anxiety to convulsions and death.
- Babies born to mothers who abuse depressants during pregnancy may be physically dependent on the drugs and show withdrawal symptoms shortly after they are born. Birth defects and behavioral problems also may result.

### Workplace issues:

- Mental clouding and drowsiness pose a fitness-for-duty concern.
- Many employers also have work rules requiring the employee to disclose if they are taking any sedating medications that could impact their ability to work safely.

## **Hallucinogens**

Hallucinogenic drugs distort the senses and often produce hallucinations--experiences that depart from reality. Phencyclidine (PCP) interrupts the function of the neurocortex, the section of the brain that controls the intellect and keeps instincts in check, because the drug blocks pain receptors. Violent PCP episodes may result in self-inflicted injuries.

### Signs and symptoms of use:

- Impaired concentration
- Confusion and agitation
- Muscle rigidity
- Profuse sweating

### Health effects:

- Chronic users of PCP report persistent memory problems and speech difficulties.
- Some of these effects may last six months to a year following prolonged daily use.
- Mood disorders, such as depression, anxiety and violent behavior, also occur.
- In later stages of chronic use, users often exhibit paranoid and violent behavior and experience hallucinations.
- Large doses may produce convulsions and coma, as well as heart and lung failure.

### Workplace issues:

- Employees who fall under Federal guidelines such as the Department of Transportation's testing regulations are prohibited from using PCP.
- Use causes severe disorientation.

## **Narcotics**

Narcotic analgesics are the most effective compounds used for pain relief. Narcotic analgesics include Opium, Opiates (morphine, codeine, percodan, heroin and dilaudid) and Opioids (synthetic substitutes such as vicodin, darvon, demerol and methadone).

### Signs and symptoms of use:

Narcotics initially produce a feeling of euphoria that is often followed by:

- Drowsiness
- Nausea and vomiting
- Constricted pupils
- Watery eyes and itching
- Low and shallow breathing
- Clammy skin
- Impaired respiration
- Convulsions
- Coma
- Possible death

### Health effects:

- Tolerance to narcotics develops rapidly and addiction is likely.
- The use of contaminated syringes may result in diseases such as HIV/AIDS, endocarditis and hepatitis.
- Addiction in pregnant women can lead to premature, stillborn or addicted infants who experience severe withdrawal symptoms.

### Workplace issues:

- Employees who fall under Federal guidelines such as the Department of Transportation's testing regulations are prohibited from using opiates without a current medical prescription.
- Many employers also have work rules requiring the employee to disclose if they are taking any sedating medications that could impact their ability to work safely.
- The addictive nature and cost can lead to workplace theft and/or dealing.
- Mental clouding and drowsiness pose a fitness-for-duty concern.

## **Designer Drugs**

Illegal drugs are defined in terms of their chemical formulas, but underground chemists can modify the molecular structure of certain illegal drugs to produce analogs known as designer drugs, which do not meet these definitions. These drugs can be several hundred times stronger than the drugs they are designed to imitate.

Many of the so-called designer drugs are related to amphetamines and have mild stimulant properties but are mostly euphorants. They can produce severe neurochemical damage to the brain. The narcotic analogs can cause symptoms such as those seen in Parkinson's disease, including uncontrollable tremors, drooling, impaired speech, paralysis and irreversible brain damage. Analogs of amphetamines and methamphetamines cause nausea, blurred vision, chills or sweating and faintness.

Psychological effects include anxiety, depression and paranoia. As little as one dose can cause brain damage, and the designer drugs still cause illusions, hallucinations and impaired perception.

Some designer drugs are: Synthetic Heroin White, MPTP (New Heroin), analogs of MDMA (Ecstasy, XTC, Essence), hallucinogens (STP, PMA, EVE) and analogs of PCP.