

XI. Health Risks Associated with Alcohol and Drugs

Alcohol

Alcohol is a legal drug. Nonetheless, it is a depressant and is the leading drug of abuse in America. Use of alcohol may affect judgment and decision-making abilities, slow down the central nervous system and brain function, and reduce coordination and reflex actions. Alcohol use (even low doses) may increase the incidence of a variety of aggressive acts, including physical altercations, threats, and domestic abuse. Higher doses may cause marked impairments in mental functions, severely altering a person's ability to learn and remember information. Very high doses may cause respiratory depression and death. Long-term consumption of large quantities of alcohol, particularly when combined with poor nutrition, also can lead to permanent damage to vital organs such as the brain and the liver.

A 12-oz. can of beer, a 5-oz. glass of wine and a 1.5-oz. shot of hard liquor all contain the same amount of alcohol. Coffee, cold showers and exercise do not speed up the body's ability to metabolize alcohol – only the passage of time will free the body from the effects of alcohol.

SIGNS AND SYMPTOMS OF ABUSE

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

Alcohol consumption causes a number of marked changes in behavior. Even small amounts alcohol can significantly impair the judgment, reaction time and coordination needed to safely operate equipment or drive a car.

HEALTH EFFECTS OF ALCOHOL

- Decreased sexual functioning
- Liver cancer, fatty liver, hepatitis, cirrhosis
- Increased cancers of the mouth, tongue, pharynx, esophagus, rectum, breast and skin
- Kidney disease
- Ulcers
- Increased acid in the stomach
- Insomnia
- Gout;
- Contributes to high blood pressure and strokes
- Heart muscle disease or heart failure
- Use during pregnancy can cause fetal alcohol syndrome, increased risk of miscarriages, premature births, stillbirths, and low-birth-weight babies;
- Increased blood sugar levels which makes diabetes worse;
- Increased severity of mental health problems such as bipolar disorder, posttraumatic stress disorder, depression, anxiety, and addiction

Marijuana

Marijuana is a derivative of the cannabis sativa 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. Long-term users of marijuana may develop tolerance levels requiring more and more marijuana to achieve the same "high". Prolonged use leads to dependence, and the drug can become the center of users' lives. The active ingredient in marijuana is Delta-9-Tetrahydrocannabinol, or THC.

SIGNS AND SYMPTOMS OF USE

- Several regularly observed physical effects of marijuana include:
 1. substantial increase in heart rate
 2. bloodshot eyes
 3. dry mouth and throat
 4. increased appetite
 5. chronic sore throat
- Use of marijuana also has mental effects that may include:
 1. impaired or reduced short-term memory and comprehension
 2. altered sense of time
 3. changed sensory perception--sight, smell, hearing, touch
 4. reduced ability to perform tasks requiring concentration and coordination, such as driving a car
- Research also shows that people do not retain knowledge when they are “high”. Motivation and cognition may be altered, making the acquisition of new information difficult. Marijuana also can produce paranoia and psychosis.

HEALTH EFFECTS

- Emphysema-like symptoms
- Respiratory track and sinus infections
- Lowered immune system response
- Because users often inhale the unfiltered smoke deeply and then hold it in their lungs as long as possible, marijuana is damaging to the lungs and pulmonary system. Marijuana smoke contains more cancer-causing agents than tobacco smoke.

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 are 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”. Inhalants can severely impair judgment and driving ability. They also cause severe disorientation, visual distortion and confusion. There is evidence that tolerance to the effects of inhalants develops with continued use so, users need to increase use to obtain the same high. Studies have shown that dependence on inhalants continues even when the user goes on to use other drugs. Inhalants include: Nitrous Oxide, laughing gas, propellant aerosol cans, Amyl Nitrite, poppers, snappers in ampules, Butyl Nitrite, rush, bullet, climax, aerosol sprays, aerosol paint cans, containers of cleaning fluid, gasoline, glue and paint thinner.

SIGNS AND SYMPTOMS OF USE

- Inhaling solvents allows the substance to reach the bloodstream very quickly. The immediate negative effects of inhalants include:
 1. nausea
 2. sneezing
 3. coughing
 4. nosebleeds
 5. fatigue

6. poor coordination
 7. loss of appetite
- Solvents and aerosol sprays also may decrease heart and respiratory rates. Amyl and Butyl Nitrite cause rapid pulse, headaches and involuntary passing of urine and feces.

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
- Deeply inhaling the vapors, or using large amounts over a short time, may result in disorientation, violent behavior, unconsciousness or death. High concentrations of inhalants can cause suffocation by displacing the oxygen in the lungs or depressing the central nervous system to the point that breathing stops.

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. Cocaine powder is sniffed or snorted. 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. 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.

SIGNS AND SYMPTOMS OF USE

- 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 effects include:
 1. dilated pupils
 2. elevated blood pressure
 3. elevated heart rate
 4. elevated respiratory rate
 5. elevated body temperature
 6. death by cardiac arrest or respiratory failure

OTHER STIMULANTS

Stimulants are drugs that stimulate the central nervous system and excite bodily activity.

Methamphetamine is one of the fastest growing drugs of abuse. These drugs create less intense and less expensive cocaine-like effects in the body. Persons who use large amounts of amphetamines over a long period of time can develop an amphetamine psychosis that includes hallucinations, delusions and paranoia. These symptoms usually disappear when drug use ceases. Amphetamines can be swallowed in pills or capsules, smoked as “crank” and “ice” or injected. An amphetamine injection creates a sudden increase in blood pressure that can result in stroke, very high fever or heart failure.

SIGNS AND SYMPTOMS OF USE

- Mood changes
- Impaired concentration
- Impaired mental functioning
- Swings between apathy and alertness
- Restless, anxious and moody behavior.

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
- Physical exertion while using stimulants can be dangerous because of the drugs’ effects on the body’s temperature-regulating and cardiovascular systems and can cause deaths in otherwise healthy young athletes.

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. 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. Depressants are known as: barbiturates, downers and tranquilizers, such as Valium, Librium, Equanil, Serax, Tranxene and Zanax.

SIGNS AND SYMPTOMS OF USE

- The effects of depressants are in many ways similar to the effects of alcohol. Small amounts can produce calmness and relaxed muscles, but somewhat larger doses can cause:
 1. slurred speech
 2. staggered walk
 3. altered perception
 4. mental clouding and drowsiness
 5. respiratory depression
 6. coma and death

HEALTH EFFECTS

- physical and psychological dependence
- tolerance to the drug, leading the user to increase the quantity consumed.

Hallucinogens

Hallucinogenic drugs distort the senses and often produce hallucinations--experiences that depart from reality. Some negative health effects may last six months to a year following prolonged daily use.

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. Lysergic acid (LSD), mescaline and psilocybin also are hallucinogens that cause illusions and hallucinations. It is common to have a bad psychological reaction to LSD, mescaline and psilocybin. The user may experience panic, confusion, suspicion, anxiety and loss of control. Delayed effects or flashbacks can occur even after use has ceased.

SIGNS AND SYMPTOMS OF USE

- impaired concentration
- confusion and agitation
- muscle rigidity
- profuse sweating
- a sense of distance and estrangement
- muscular coordination worsens and senses are dulled
- blocked and incoherent speech
- dilated pupils
- elevated body temperature
- increased heart rate and blood pressure
- loss of appetite
- sleeplessness
- tremors

HEALTH EFFECTS

- persistent memory problems

- speech difficulties
- Mood disorders, such as depression, anxiety and violent behavior
- paranoid and violent behavior
- hallucinations
- convulsions and coma
- heart and lung failure.

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). Narcotics can be smoked or eaten (opium), injected, taken orally or smoked (morphine), inhaled, injected or smoked (heroin). Opiates also are known as: heroin, smack, horse, brown sugar and black tar.

SIGNS AND SYMPTOMS OF USE

- A feeling of euphoria that is often followed by:
 1. drowsiness
 2. nausea and vomiting
 3. constricted pupils
 4. watery eyes and itching
 5. low and shallow breathing
 6. clammy skin
 7. impaired respiration
 8. convulsions
 9. coma
 10. possible death

HEALTH EFFECTS

- easy addition
- addiction in pregnant women can lead to premature, stillborn or addicted infants who experience severe withdrawal symptoms.

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 euphoriant. 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.

