

Health Risks Associated with Alcohol Abuse and the Use of Illicit Drugs

Alcohol Abuse

Alcohol is a primary and continuous depressant of the central nervous system. Impairment of judgment and of recently learned, complex and finely tuned skills begins to occur at blood alcohol concentrations as low as 0.025 percent. These impairments are followed by the loss of more primitive skills and functions, such as gross motor control and orientation at concentrations in excess of 0.05 percent. Alcohol in moderate doses impairs nearly every aspect of information processing, including the ability to abstract and conceptualize, the ability to use large numbers of situational cues presented simultaneously, and the cognitive ability to determine meaning from incoming information. Alcohol consumption can therefore promote action on impulse without full appreciation of, or concern about, the potential negative consequences of such action. Chronic long-term effects of heavy drinking over a period of years can result in brain damage; cancer of the mouth, esophagus or stomach; heart disease; liver damage resulting in cirrhosis, alcoholic hepatitis, and cancer of the liver; peptic ulcer disease; and possible damage of the adrenal and pituitary glands. Prolonged, excessive drinking can shorten life span by 10 to 12 years.

Illicit Drugs

Illicit drugs include narcotics, such as heroin or morphine; depressants, such as barbiturates, Quaaludes, or valium; stimulants, such as cocaine or "crack"; hallucinogens, such as PCP, LSD or mescaline; cannabis, such as marijuana or hashish; inhalants, such as nitrous oxide, amyl nitrite (poppers) or various hydrocarbon solvents; and designer drugs, such as α -methylfentanyl (China White), methamphetamine (Ecstasy) or meperidine (Demerol).

Narcotics. Narcotics initially produce a feeling of euphoria that is often followed by drowsiness, nausea and vomiting. Tolerance may develop rapidly and dependence is likely. The use of contaminated syringes may result in diseases such as AIDS, endocarditis (inflammation of the lining of the heart) and hepatitis.

Depressants. The effects of depressants are in many ways similar to the effects of alcohol. Small amounts can produce calmness and relaxed muscles, but a somewhat larger dose can cause slurred speech, ataxia or unstable gait, and altered perception. Very large doses can cause respiratory depression, coma and death. The combination of depressants and alcohol can multiply the effects of the drugs, thereby multiplying the risks. The use of depressants can cause both physical and psychological dependence.

Stimulants. Cocaine stimulates the central nervous system. Its immediate effects include dilated pupils; elevated blood pressure, heart and respiratory rate; and increased body temperature. Occasional use can cause a stuffy or runny nose, while chronic use can ulcerate the mucous membrane of the nose with long-term use eroding

the nasal septum. The injection of cocaine with unsterile equipment can cause AIDS, hepatitis and other diseases. Preparation of freebase, which involves the use of volatile solvents, can result in death or injury from fire or explosion. Cocaine can produce psychological and physical dependency. In addition, tolerance develops rapidly. Crack or freebase rock is extremely addictive. The physical effects include dilated pupils, increased pulse rate, elevated blood pressure, insomnia, loss of appetite, tactile hallucinations, paranoia and seizures. Overdoses occur easily.

Hallucinogens. Phencyclidine (PCP) users frequently report a sense of distance and estrangement. Time and body movement are slowed down. Muscular coordination worsens, and senses are dulled. Speech is blocked and incoherent. Chronic PCP users report persistent memory problems and speech difficulties. Mood disorders, such as depression, anxiety and violent behavior, may also occur. In late stages of chronic use, users often exhibit paranoid and violent behavior and experience hallucinations. Large doses may produce convulsions and coma, heart failure, lung problems and/or ruptured blood vessels in the brain. Lysergic acid (LSD), mescaline and psilocybin cause illusions and hallucinations. The physical effects may include dilated pupils, elevated body temperature, increased heart rate and blood pressure, loss of appetite, sleeplessness and tremors. Sensations and feelings may change rapidly. 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.

Inhalants. The chemicals in most inhalants are rapidly absorbed in the lungs and exert their central nervous system effects within seconds, producing an altered mental state for about five to fifteen minutes. Immediate effects of inhalants include nausea, sneezing, coughing, nose bleeds, fatigue, lack of coordination and loss of appetite. Solvents and aerosol sprays can decrease the heart and respiratory rates and impair judgment. Amyl and butyl nitrite can cause rapid pulse, headaches, and involuntary passing of urine and feces. Inhalation of toluene as well as other hydrocarbons has been associated with kidney and liver damage, peripheral nerve problems, convulsions, encephalopathy (organic brain damage) and other central nervous system disorders. Sudden death associated with both glue sniffing and especially the inhalation of aerosols containing halogenated hydrocarbons (Freon) has been reported and is thought to be secondary to cardiac arrhythmias (abnormal electrical conduction patterns in the heart).

Marijuana. The short term effects of marijuana include distortion of time perception, increased heart rate, dilation of blood vessels and loss of short-term memory. Also decreased are visual perception and psychomotor skills, which have adverse effects on driving ability. The effects of long-term use include loss of motivation, chronic bronchitis, decreased vital lung capacity and an increased risk of lung cancer. Tolerance and psychological dependence do develop with marijuana.

Designer Drugs. Designer drugs are synthetic chemical modifications of older drugs of abuse that are designed and manufactured in covert laboratories and sold at great profit

for recreational use. These drugs can be several hundred to several thousand times stronger than the drugs they are designed to imitate. Designer drugs similar to opiates include fentanyl, demerol, and "china white." The narcotic analogs of designer drugs can cause symptoms such as those seen in Parkinson's disease - 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. Withdrawal problems include sweating, diarrhea, fever, insomnia, irritability, nausea and vomiting, and muscle and joint pain.