

## **Health Risks Associated With Substance Abuse**

### **Tobacco and Nicotine**

Smokers are more likely than non-smokers to contract heart disease. Lung, larynx, esophageal, bladder, pancreatic and kidney cancers also strike smokers at increased rates. Thirty percent of cancer deaths are linked to smoking. Chronic obstructive lung diseases, such as emphysema and chronic bronchitis, are 10 times more likely to occur among smokers than among non-smokers. Smoking during pregnancy also poses risks, such as spontaneous abortion, pre-term birth, and low birth weights. Fetal and infant deaths are more likely to occur when the pregnant woman is a smoker. Nicotine is both psychologically and physically addictive.

### **Alcohol**

Low doses significantly impair the judgment and coordination needed to operate vehicles. Small amounts can also lower inhibitions. Moderate to high doses cause marked impairments in higher mental functions, and loss of memory and the ability to learn and remember information. High doses cause respiratory depression and death. Long-term consumption, particularly when combined with poor nutrition, can also lead to dependence and permanent damage to vital organs such as the brain and the liver. If combined with other depressants of the central nervous system, much lower doses of alcohol will produce the effects just described. Mothers who drink alcohol during pregnancy may give birth to infants with fetal alcohol syndrome. These infants have irreversible physical abnormalities and mental retardation.

### **Cannabis**

(Marijuana, Hashish, Hashish Oil, Tetrahydrocannabinol)

Physical effects of cannabis include increased heart rate, bloodshot eyes, dry mouth and throat, and increased appetite. Use of cannabis may impair or reduce short-term memory and comprehension, alter sense of time, reduce ability to perform tasks requiring concentration and coordination, and impair driving ability. Motivation and cognition may be altered, making the acquisition of new information difficult. Marijuana, hashish, THC, etc., can also produce paranoia and psychosis. Long-term use may result in possible lung damage, reduced sperm count and sperm motility, and may affect ovulation cycles. Cannabis can also be psychologically addictive.

### **Inhalants**

(Nitrous Oxide, Amyl Nitrite, Butyl Nitrite, Chlorohydrocarbons, Hydrocarbons)

Immediate effects of inhalants include nausea, sneezing, coughing, nosebleeds, fatigue, lack of coordination, and loss of appetite. Solvents and aerosol sprays also decrease the heart and respiratory rates and impair judgment. Amyl and butyl nitrite cause rapid pulse, headaches, and involuntary passing of urine and feces. Long-term use may result in hepatitis or brain damage. Deeply inhaling 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 oxygen in lungs. Long-term use can cause weight loss, fatigue, electrolyte imbalance, muscle fatigue, and permanent damage to the nervous system.

### **Cocaine (Crack)**

Cocaine stimulates the central nervous system. Its immediate effects include dilated pupils and

elevated blood pressure, heart rate, respiratory rate, and body temperature. Occasional use can cause nasal irritation; chronic use can ulcerate the mucous membrane of the nose. Crack or freebase rock is extremely addictive. Physical effects include dilated pupils, increased pulse rate, elevated blood pressure, insomnia, loss of appetite, tactile hallucinations, paranoia and seizures. The use of cocaine can cause death by cardiac arrest or respiratory failure.

### **Stimulants**

(Amphetamines, Methamphetamines, Crank, Ice)

Stimulants cause increased heart and respiratory rates, elevated blood pressure, dilated pupils and decreased appetite. Users may experience sweating, headache, blurred vision, dizziness, sleeplessness and anxiety. Extremely high doses can cause rapid or irregular heartbeat, tremors, loss of coordination, and physical collapse. Amphetamine injection creates a sudden increase in blood pressure that can result in stroke, very high fever, or heart failure. In addition to physical effects, feelings of restlessness, anxiety and moodiness can result. Use of large amounts over a long period of time can cause amphetamine psychosis that includes hallucinations, delusions and paranoia. The use of amphetamines can cause physical and psychological dependence.

### **Depressants**

(Barbituates, Methaqualone, Tranquilizers)

Small amounts can produce calmness and relaxed muscles, but somewhat larger doses can cause slurred speech, staggering gait and altered perception. Large doses can cause respiratory depression, coma and death. Combination of depressants and alcohol can multiply effects of the drugs, thereby multiplying risks. Babies born to mothers who abuse depressants during pregnancy may be physically dependent on the drugs and show withdrawal symptoms shortly after birth. Birth defects and behavioral problems may also result. The use of depressants can cause both physical and psychological dependence.

### **Hallucinogens**

(PCP, LSD, Mescaline, Peyote, Psilocybin)

Phencyclidine (PCP) interrupts the functions of the neocortex, the section of the brain that controls intellect and instinct. PCP blocks pain receptors, and users can have violent PCP episodes resulting in self-inflicted injuries. Lysergic acid diethylamide (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.

### **Narcotics**

(Heroin, Methadone, Codeine, Morphine, Meperidine, Opium)

Narcotics initially produce a feeling of euphoria that often is followed by drowsiness, nausea and vomiting. Users may experience constricted pupils, watery eyes and itching. Overdoses may produce respiratory depression, clammy skin, convulsions, coma and death. Addiction in pregnant women can lead to premature, stillborn, or addicted infants who experience severe withdrawal symptoms. Use of narcotics can cause physical and psychological dependence.

### **Designer Drugs**

(Analog of Fenatyl, Analog of Meperidine, MDMA, Ecstasy Analog of PCP)

Many "designer drugs" are related to amphetamines and depressants and have mild stimulant and depressant properties. Use can produce severe neurochemical damage to the brain. Narcotic analogs 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. Analogs of PCP cause illusions, hallucinations and impaired perception.

### **Anabolic Steroids**

Steroid users subject themselves to more than 70 side effects, ranging in severity from acne to liver cancer, including psychological as well as physical reactions. The liver and cardiovascular and reproductive systems are most seriously affected by use. In males, use can cause withered testicles, sterility and impotence. In females, irreversible masculine traits can develop along with breast reduction and sterility. Psychological effects in both sexes include very aggressive behavior, known as "roid rage" and depression. While some side effects appear quickly, others, such as heart attacks and strokes, may not show up for years.

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### **References**

U.S. Dept. of Education (1989). What Works: Schools Without Drugs. (Rockville, MD: National Clearinghouse for Alcohol and Drug Information, 1989), pp 61-72.  
National Institute on Drug Abuse, NIDA Capsules, (Rockville, MD: Press Office of the National Institute on Drug Abuse, 1986).