

Health Risks Associated with the Use of Alcohol and Illicit Drugs

The High Plains Technology Center Board of Education feels that certain activities are detrimental to the work environment, to individual educational development, and undermine effective work productivity and effective education. The school district is concerned with the health, safety, and well-being of all employees and students. In order to increase awareness in the potential hazards associated with use and abuse, the following specific drugs and their effects are presented.

ALCOHOL

Alcohol consumption causes a number of marked changes in behavior. Even low doses significantly impair the judgment and coordination required to drive a car safely, increasing the likelihood that the driver will be involved in an accident. Low to moderate doses of alcohol also increase the incidence of a variety of aggressive acts, including spousal and child abuse. Moderate to high doses of alcohol cause marked impairments in higher mental functions, severely altering a person's ability to learn and remember information. Very high doses cause respiratory depression and death. If combined with other depressants of the central nervous system, much lower doses of alcohol will produce the effects just described. Repeated use of alcohol can lead to dependence. Sudden cessation of alcohol intake is likely to produce withdrawal symptoms, including severe anxiety, tremors, hallucinations, and convulsions. Alcohol withdrawal can be life-threatening.

Long-term consumption of large quantities of alcohol, particularly when combined with poor nutrition, can also lead to permanent damage to vital organs such as the brain and the liver.

Mothers who drink alcohol during pregnancy may give birth to infants with fetal alcohol syndrome. These infants have irreversible physical abnormalities and mental retardation.

ANABOLIC STEROIDS

Anabolic steroids are a group of powerful compounds closely related to the male sex hormone testosterone. Developed in the 1930s, steroids are seldom prescribed by physicians today. Current legitimate medical uses are limited to certain kinds of anemia, severe burns, and some types of breast cancer.

Taken in combination with a program of muscle-building exercise and diet, steroids may contribute to increases in body weight and muscular strength. Because of these properties, athletes in a variety of sports have used steroids since the 1950s, hoping to enhance performance. Today, they are being joined by increasing numbers of young people seeking to accelerate their physical development.

Steroid users subject themselves to more than 70 side effects ranging in severity from liver cancer to acne and including psychological as well as physical reactions. The liver and the cardiovascular and reproductive systems are most seriously affected by steroid 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.

Signs of steroid use include quick weight and muscle gains (if steroids are being used in conjunction with a weight training program); behavioral changes, particularly increased aggressiveness and combativeness; jaundice, purple or red spots on the body; swelling of feet or lower legs; trembling; unexplained darkening of the skin; and persistent unpleasant breath odor.

Steroids are produced in tablet or capsule form for oral ingestion, or as a liquid for intramuscular injection.

CANNABIS

All forms of cannabis, including marijuana commonly known as a gate-way drug, have negative physical and mental effects. Several regularly observed physical effects of cannabis are a substantial increase in the heart rate, bloodshot eyes, a dry mouth and throat, and increased appetite.

Use of cannabis may impair or reduce short-term memory and comprehension, alter sense of time, and reduce ability to perform tasks requiring concentration and coordination, such as driving a car.

Research also shows that students do not retain knowledge when they are "high."

Motivation and cognition may be altered, making the acquisition of new information difficult. Marijuana can also produce paranoia and psychosis.

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.

Long-term users of cannabis may develop psychological dependence and require more of the drug to get the same effect. The drug can become the center of their lives.

Some examples of cannabis are Marijuana; Tetrahydrocannabinol (THC); Hashish; Hashish Oil.

COCAINE

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 a stuffy or runny nose, while chronic use can ulcerate the mucous membrane of the nose. Injecting cocaine with contaminated 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, a feeling that the user cannot function without the drug. In addition, tolerance develops rapidly. Crack or freebase rock is extremely addictive, and its effects are felt within 10 seconds. The 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.

Some examples are Cocaine (coke, blow, white); Crack (free base rocks, rock).

DEPRESSANTS

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 slurred speech, staggering 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. Regular use over time may result in tolerance to the drug, leading the user to increase the quantity consumed. When regular users suddenly stop taking large doses, they may 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.

Some examples are Barbiturates (downers); Methaqualone (Quaalude); Tranquilizers (valium, Librium).

DESIGNER DRUGS

Illegal drugs are defined in terms of their chemical formulas. To circumvent these legal restrictions, underground chemists modify the molecular structure of certain illegal drugs to produce analogs known as designer drugs. 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: uncontrollable tremors, drooling, impaired speech, paralysis, and irreversible brain damage. Analogs of amphetamines and methamphetamines cause nausea, blurred vision, chills or sweating, and fainting. Psychological effects include anxiety, depression, and paranoia. As little as one dose can cause brain damage. The analogs of phencyclidine cause illusion, hallucinations, and impaired perception.

Some examples are Analogs of Fentanyl (china white); Analogs of Meperidine (synthetic heroin, PEPAP); Analogs of Amphetamines and Methamphetamines (EVE, Adam); Analogs of Phencyclidine (PCPY, PCE, TCP).

HALLUCINOGENS

Phencyclidine (PCP) interrupts the functions of the neocortex, 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.

The effects of PCP vary, but 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 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--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. 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.

Some examples are Phencyclidine (PCP); Lysergic Acid Diethylamide (LSD); Mescaline and Peyote (mesc, buttons, cactus); Psilocybin (magic mushrooms).

NARCOTICS

Narcotics initially produce a feeling of euphoria that often is followed by drowsiness, nausea, and vomiting. Users also may experience constricted pupils, watery eyes, and itching. An overdose may produce slow and shallow breathing, clammy skin, convulsions, coma, and possible death.

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

Some examples are: Heroin (smack, horse); Methodone, Codeine (Tylenol w/codeine, codeine in cough medicines); Morphine (pectoral syrup); Opium (paregoric); Other Narcotics (Iomotil, Darvon, percodan).

OTHER STIMULANTS

Stimulants can cause increased heart and respiratory rates, elevated blood pressure, dilated pupils, and decreased appetite. In addition, users may experience sweating, headache, blurred vision, dizziness, sleeplessness, and anxiety. Extremely high doses can cause a rapid or irregular heartbeat, tremors, loss of coordination, and even physical collapse. An amphetamine injection creates a sudden increase in blood pressure that can result in stroke, very high fever, or heart failure.

In addition to the physical effects, users report feeling restless, anxious, and moody. Higher doses intensify the effects. 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.

Some examples are Amphetamines (speed, uppers, pep pills); Methamphetamines (crank, crystal methedrine, speed); Additional Stimulates (Ritalin, cyllert, precludin, didrex, pre-state, voranil, tenuate, tepanil, pondimin, sandrex, plegine, ionamin).

OVER THE COUNTER DRUGS (OTC'S)

Abuse of some over-the-counter (OTC) drugs, such as cough and cold remedies has become common in the

US, especially among teenagers. Many of these products are widely available and can be purchased at supermarkets, drugstores, and convenience stores. Many OTC drugs that are intended to treat headaches, sinus pressure, or cold/flu symptoms contain the active ingredient dextromethorphan (DXM) and are the ones that teens are using to get high. When taken in high doses, DXM can produce a "high" feeling and can be extremely dangerous in excessive amounts.

Over-the-counter drug abuse also occurs with laxatives, diuretics, emetics, and diet pills, as teens try to achieve an idealized weight. Young people may start taking just a few diet pills but then graduate to full addiction and dependence. Ephedrine, caffeine, and phenylpropanolamine are just some of the dangerous and addictive substances found in diet pills. Herbal, sometimes referred to as "natural", weight loss products can be just as dangerous as diet pills. All of these substances act as stimulants to the central nervous system and much like speed, can have serious and potentially fatal side effects.

PRESCRIPTION DRUGS

Prescription drug abuse means taking a prescription medication that is not prescribed for you, or taking it for reasons or in dosages other than as prescribed. Abuse of prescription drugs can produce serious health effects, including addiction. Commonly abused classes of prescription medications include opioids (for pain), central nervous system depressants (for anxiety and sleep disorders), and stimulants (for ADHD and narcolepsy). Opioids include hydrocodone (Vicodin®), oxycodone (OxyContin®), propoxyphene (Darvon®), hydromorphone (Dilaudid®), meperidine (Demerol®), and diphenoxylate (Lomotil®). Central nervous system depressants include barbiturates such as pentobarbital sodium (Nembutal®), and benzodiazepines such as diazepam (Valium®) and alprazolam (Xanax®). Stimulants include dextroamphetamine (Dexedrine®), methylphenidate (Ritalin® and Concerta®), and amphetamines (Adderall®).

Long-term use of opioids or central nervous system depressants can lead to physical dependence and addiction. Opioids can produce drowsiness, constipation and, depending on amount taken, can depress breathing. Central nervous system depressants slow down brain function; if combined with other medications that cause drowsiness.

TOBACCO

The smoking of tobacco products is the chief avoidable cause of death in our society. About half of all Americans who keep smoking will die because of the habit. Each year about 443,600 people in the United States die from illnesses related to tobacco use. Smoking cigarettes kills more Americans than alcohol, car accidents, suicide, AIDS, homicide, and illegal drugs combined. Smokers are more likely than nonsmokers to contract heart disease. Lung, larynx, esophageal, bladder, pancreatic, and kidney cancers also strike smokers at increased rates. Some 30 percent of cancer deaths are linked to smoking. Chronic obstructive lung disease such as emphysema and chronic bronchitis are 10 times more likely to occur among smokers than among nonsmokers. Smoking during pregnancy also poses serious risks. Spontaneous abortion, pre-term birth, low birth weights, and fetal and infant deaths are all more likely to occur when the pregnant woman/mother is a smoker.

Cigarette smoke contains some 4,000 chemicals, several of which are known carcinogens. Other toxins and irritants found in smoke can produce eye, nose, and throat irritations. Carbon monoxide, another component of cigarette smoke, combines with hemoglobin in the blood stream to form carboxyl hemoglobin, a substance that interferes with the body's ability to obtain and use oxygen.

Perhaps the most dangerous substance in tobacco smoke is nicotine. Although it is implicated in the onset of heart attacks and cancer, its most dangerous role is reinforcing and strengthening the desire to smoke. Because nicotine is highly addictive, addicts find it very difficult to stop smoking. Of 1,000 typical smokers, fewer than 20 percent succeed in stopping on the first try.

Although the harmful effects of smoking cannot be questioned, people who quit can make significant strides in repairing damage done by smoking. For pack-a-day smokers, the increased risk of heart attack dissipates after 10 years. The likelihood of contracting lung cancer as a result of smoking can also be greatly reduced by quitting.