Lions Quest

SKILLS for GROWING
THIRD EDITION

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Drug Information Guide

Partnering Organizations
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National Association of Elementary School Principals
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Supporting Organizations
American Association of School Administrators
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Lions Quest

Drug Information Guide - 3
Drug Information Guide

Introduction

This guide was developed to provide teachers and parents in the Lions Quest program with current information about harmful chemical substances and their effects. Accurate information about drugs and their effects is essential in countering the wide variety of pro-drug messages children see and hear every day. This knowledge is basic to helping young people grow up drug-free, one of the main goals of the Lions Quest program.

This guide emphasizes the "no drug use by minors" premise that is central to the Lions Quest program. The program rejects the idea of "responsible use" of any mind-altering chemical by young people. The only acceptable position for minors is "no use."

A special note to teachers: In developing this guide, it was impossible to anticipate every question your students may ask. Nor is it possible or even necessary for you to become an expert on drugs. If you find you need additional information about drugs and their effects, please contact knowledgeable resource people in your community. In addition, visit the web sites of the organizations listed below for current information and useful links. Also note that many of the terms used in this guide are defined in the glossary.

The guide is based on information from the following sources:

Drug Enforcement Administration, US Department of Justice
Health Canada
Lions Clubs International
National Clearinghouse for Alcohol and Drug Information (US)
National Clearinghouse on Tobacco and Health (Canada)
Canadian Centre on Substance Abuse
National Institute on Drug Abuse
Partnership for a Drug Free America

*Additional Resources, including organizations, publications, hotlines and media, can be found in the Program Guide.
The Effects of Drug Use on the Body and Mind

A drug is any chemical substance that changes the way the mind or body works. Some drugs are medicines. Medicines can be helpful when used properly, but any drug, including misused medicines, can be harmful to the body's organs and systems.

Drugs can either speed up the body or slow it down. A drug that speeds up the body can increase the breathing rate and cause heart problems, including a heart attack. A drug that slows the body down can lead to unconsciousness and death.

Drugs that affect the brain can change the user's feelings, thoughts, and coordination. After using a drug, a person may have trouble doing something difficult, like driving a car—or even something simple, like walking. The use of drugs often leads to accidents and car crashes.

If drugs damage the reproductive organs of either the male or female, their children can be born with birth defects and other health problems.

Exercise regularly—Running, walking, swimming, and other exercise can help keep your heart, blood vessels, lungs, and all your body's systems strong and healthy. Exercise can be something you like to do and want to do—not a chore. Make it a healthy habit.

Exercise your mind—Reading, thinking, learning, and solving problems all help your brain work better.

Get enough rest and sleep—You can't be on the go all the time. Rest is just as important as exercise.

Enjoy yourself—The fast pace and pressures of modern living are a big source of health problems. You can reduce stress by doing almost anything you find fun and relaxing—working on hobbies, playing games, laughing with friends, or playing or listening to music.

Stay drug-free—Drug use is one of the major threats to your body's health and well-being. An important part of keeping your body healthy is refusing to use drugs.

Ways to Stay Healthy

More and more health experts believe that the way we treat our bodies can help us live a long, healthy life. Here are some ways to stay well:

Eat a well-balanced diet—This includes avoiding foods with lots of fat and sugar and eating a variety of foods: fruits, vegetables, grains, meats, and dairy products.
Major Drug Categories

Depressants

Drug Name
See “Description.”

Slang Names
Downers and others (See “Description.”)

Description
Mind-altering drugs fall into one of four categories: depressants, hallucinogens, narcotics, or stimulants. This section explains the effects of depressant drugs.

All depressants slow down the way the body works. Some depressants are sold legally as prescription drugs to help people feel calm or sleep, to prevent convulsions, and to reduce pain. The depressant drug called alcohol is sold legally to adults. Other depressants, such as quaaludes (KWAY-loods), are sold illegally.

Alcohol
See the “Alcohol” section in this guide.

Barbiturates (bar-BICH-er-ets)
Also known as "barbs" and "reds," barbiturates are prescription drugs that come in tablets and capsules and help people sleep. Brand names include Seconal and Nembutal. Phenobarbital helps prevent or reduce the frequency of convulsions.

Methaqualone (meth-uh-KWAHL-ohn)
Also known as "quaaludes" or "ludes," these drugs are now illegal to make and sell. Those for sale may be much more dangerous than the type that used to be legal.

Tranquilizers (TRANK-wil-eye-zers)
Usually available as capsules or tablets, tranquilizers are prescription drugs used for their soothing, calming effects. Brand names include Valium and Librium.

Effects on the Body and Health

Brain and central nervous system. Depressants slow down the brain and central nervous system. All of them can be addicting, especially barbiturates.

Heart, breathing. An overdose of depressants, slowing the heart and breathing, can lead to a coma and even death.

Muscles. Depressants relax the muscles, resulting in coordination problems and staggering.

Reproductive system. Use of depressants during pregnancy can lead to birth defects and addicted babies.

Effects on Behavior

As depressants slow down the brain's functioning, they can cause confusion, loss of concentration, memory and perception problems, and poor judgment.

Users may be poorly coordinated and have trouble speaking and thinking clearly. They may appear to be drunk.
**Major Drug Categories**

**Depressants**

> When regular users stop taking depressants, they feel anxious, have trouble sleeping, and lose their appetite. They may experience headaches, stomach cramps or an upset stomach, shaking, and vomiting.

> Depressants are the most frequently prescribed drug. Not all of them are used as the doctor directed, though, because almost one-third of all drug-related deaths involve depressants.

> Because they have such a powerful effect on the brain, depressants must be used carefully, under the guidance of a doctor.

**DID YOU KNOW?**

> People who use depressants on a regular basis need more and more of the drug to get the same effect. Users run a serious risk of overdose, leading to death.

> Depressant users often lose track of how many pills they have taken. Some use alcohol with other depressants, which increases the dangers of both drugs.
Hallucinogens

Drug Name
Hallucinogens (huh-LOO-sin-uh-jens), psychedelics (sy-kih-DEL-ics)

Slang Names
See “Description.”

Description
Mind-altering drugs fall into one of four categories: depressants, hallucinogens, narcotics, or stimulants. This section explains the effects of hallucinogenic drugs.

Hallucinogens are drugs that cause hallucinations - profound distortions in a person's perceptions of reality. Under the influence of hallucinogens, people see images, hear sounds, and feel sensations that seem real but do not exist. Some hallucinogens also produce rapid, intense emotional swings. Hallucinogens can be either organic (taken from plants) or synthetic (created in laboratories).

All types of hallucinogens are illegal to buy or sell.

LSD (Lysergic Acid Diethylamide)
Common names are “acid,” “sugar cubes,” “peary gates,” “wedding bells,” and “white lightning.” This odorless, colorless, and tasteless drug is one of the most potent mind-altering chemicals available. Tiny amounts can affect the user for many hours. LSD is a synthetic hallucinogen available on blotter paper (“blotter acid”), in thin squares of gelatin, in clear liquid, in aspirin-size tablets (“tab acid”), and in tiny tablets (“microdots”). LSD is swallowed, licked off paper, or even dropped into the eyes.

Mescaline (MESK-uh-lin) and Peyote (pay-OH-tee)
“Mesc,” “buttons,” and “cactus” are common names for closely related drugs from the peyote cactus plant. They come in tablets, capsules, or hard, brown discs that are chewed, swallowed, or smoked.

Psilocybin (sil-oh-SY-bin)
“Magic mushrooms” are often sold as tablets or capsules. The psilocybin mushrooms themselves are eaten fresh or dried.

PCP (Phencyclidine) (fen-SIC-lih-deen)
Other names are “angel dust” and “killer weed.” This drug was invented in the 1950s as an anesthetic for humans, but the severe side effects led to a law that PCP could not be used by humans. Afterward PCP was used as an animal tranquilizer. PCP comes in liquid, capsules, white powder, or pills. It is swallowed, injected, or smoked after being sprinkled on cigarettes or marijuana.

Ecstasy/MDA and MDMA
Both of these drugs are synthetic, sold as substitutes for LSD. MDMA is known as “Ecstasy,” “Essence,” “Love Drug,” “M & M,” and “Adam.” Both drugs damage the brain and can lead to death.

Many other plants have hallucinogenic effects. These include members of the nightshade family (deadly nightshade, jimsonweed, or “locoweed”) and arnica muscari, a poisonous mushroom.
**Major Drug Categories**

**Hallucinogens**

**Effects on the Body and Health**

**Brain.** Hallucinogens cause their effects by disrupting the interaction of nerve cells and the neurotransmitter serotonin. Distributed throughout the brain and spinal cord, the serotonin system is involved in the control of behavioral, perceptual, and regulatory systems, including mood, hunger, body temperature, sexual behavior, muscle control, and sensory perception.

Hallucinogens can change the user’s perceptions even in relatively low doses. Users may also have problems with memory, attention span, and abstract thinking; use can lead to headaches, sleeplessness, convulsions, and brain damage. A loss of coordination contributes to falls and other accidents.

**Eyes.** Use results in dilated (widened) pupils and blurred vision.

**Heart, blood circulation.** Use of these drugs can cause high blood pressure, increased heart rate, shakiness, and increased body temperature.

**Digestive system.** Users may suffer an upset stomach, vomiting, cramps, and loss of appetite.

**Reproductive system.** The use of hallucinogens during pregnancy can cause birth defects.

A "bad trip" (bad experience) is common. Users are often left with a tense, nervous feeling.

Users of PCP may become out of control and violent. In addition to causing poor judgment, the drug decreases the user’s ability to feel pain, contributing to serious accidents and self-inflicted injury.

Among users of PCP, drownings are not uncommon. PCP raises the body temperature and makes the user’s skin feel hot and dry; the user may bathe or swim without enough physical control and awareness to survive.

**DID YOU KNOW?**

- Death is a common consequence of using hallucinogens. It can result from car crashes, falls, burns, other accidents, and overdoses.

- Some people who use hallucinogens have "flashbacks" weeks or even months later. Without taking the drug again, they experience some of the same perceptual problems as when they were using the drug. Flashbacks can be frightening, causing the person to feel out of control.

**Effects on Behavior**

Hallucinogens can change the thoughts, feelings, and behavior of the user, often in unexpected ways. Use of these drugs can lead to worried feelings, depression, panic, paranoia, or long-term mental disturbance.
Narcotics

Drug Name

Narcotics (nar-KAH-tics), opiates (OH-pee-its), analgesics (an-uhl-GEE-ziks)

Slang Names

Big H, brown sugar, and others in “Description.”

Description

Mind-altering drugs fall into one of four categories: depressants, hallucinogens, narcotics, or stimulants. This section explains the effects of narcotic drugs.

All narcotics dull the senses, relieve pain, and, if misused, can lead to unconsciousness and death.

Some narcotics called opiates come from the seeds of a poppy plant that grows mainly in Asia and the Middle East. Wild poppies that grow in North America are not a source of narcotics, however. Opiates from plants include opium, morphine, codeine, and heroin. Other narcotics, like Demerol, are made in laboratories.

Many narcotics are prescribed by doctors as pain relievers, but they are also bought and sold illegally.

Demerol, Dilaudid, Oxycodone and Hydrocodone

These synthetic narcotics are sometimes prescribed by doctors to kill pain. A few of the brand names of these prescription painkillers that are widely abused are Vicodin and OxyContin.

Heroin

This white-to-dark-brown powder or tar-like substance made from morphine is highly addictive and has many slang names, such as “smack,” “H,” “horse,” and “junk.” Heroin is the strongest of all opiates. It is illegal to buy or sell heroin.

Methadone

Available in pills or liquids that can be swallowed or injected, methadone is a manufactured drug used to prevent the craving to use other opiates. It is often given to heroin addicts to help them stop using that drug. Although not so dangerous as heroin, methadone is also highly addictive.

Morphine

This painkilling drug comes in tablets or liquids that are swallowed, injected, or smoked.

Opium

This drug comes in dark brown chunks or powder and is smoked or eaten. It is illegal to buy or sell opium.

Effects on the Body and Health

Brain. Narcotics affect the brain, making the user calm or drowsy. They can also kill pain.
Major Drug Categories

Narcotics

Drugs in this category are highly addictive; regular users quickly need larger and larger doses to get the same effect.

**Eyes, skin.** Constricted (narrowed) pupils, watery eyes, and itchy skin are common side effects.

**Heart, breathing.** An overdose of narcotics causes slow, shallow breathing; cold, clammy skin; convulsions; coma; and possibly death.

**Digestive system.** Four to six hours after the last dose of a narcotic, the addict experiences diarrhea, stomach cramps, chills, sweating, an upset stomach, and vomiting. Although these symptoms eventually go away, sleeplessness and craving for the drug can last for months. Addicts often suffer from malnutrition because they don’t eat properly.

**Reproductive system.** Pregnant women who use narcotics risk having premature, stillborn, or addicted babies.

Over time, narcotics users can develop heart infections, congested lungs, and skin diseases. Using unclean mixtures of narcotics or infected hypodermic needles may result in hepatitis, tetanus, or AIDS.

**Effects on Behavior**

Narcotics users may feel drowsy and depressed while using the drug. However, addicts feel desperate and panicky when they can’t get another dose, and their behavior may become increasingly wild and erratic.

**DID YOU KNOW?**

- In the 1800s doctors commonly used narcotics as painkillers. Narcotics were also included in over-the-counter drugs. Eventually the addictive nature of these drugs led to strict laws governing how they are used. Any use of certain narcotics, such as heroin and opium, was outlawed.

- People who use narcotics often develop a psychological addiction to these drugs. This addiction can last long after they have overcome their physical addiction.

- People addicted to heroin are often referred to as “junkies.” Usually they inject the drug into veins on their arms and spend most of their time under the influence of the drug. The injections leave scars called “track marks” up and down their arms. Many heroin addicts need several shots of this drug every day. Some rob stores and mug people on the street to get money to buy more heroin.

- Crime related to making, smuggling, and selling narcotics costs society billions of dollars every year. Many more millions are spent fighting crimes committed by users who rob others to get money to buy drugs.
**Stimulants**

**Drug Name**

See “Description.”

**Slang Names**

Uppers, speed

**Description**

Mind-altering drugs fall into one of four categories: depressants, hallucinogens, narcotics, or stimulants. This section explains the effects of stimulant drugs.

Stimulants increase alertness, attention and energy, which are accompanied by increases in blood pressure, heart rate and respiration.

**Amphetamines (am-FET-uh-mins)**

Amphetamines are sometimes prescribed by doctors for medical problems, but these pills are also abused for their effects on the brain. Methamphetamine is a powerful form of amphetamines that comes in clear crystals or powder and easily dissolves in water or alcohol. It is often made in illegal laboratories with inexpensive and readily available ingredients (such as drain cleaner, battery acid, and antifreeze).

**Antidepressants**

Antidepressants are prescribed by doctors to treat depressed patients. These drugs can have harmful side effects, such as fatigue, poor coordination, problems in concentration, and blurred vision.

**Caffeine**

Caffeine is a relatively mild stimulant and may be the world’s most commonly used drug. It is in many beverages, chocolate, aspirin, over-the-counter cough and cold remedies, and drugs to keep people awake. It’s also a major ingredient in many drugs sold on the street such as speed, uppers, or PCP.

Caffeine reduces tiredness, but it also increases the heart rate, blood pressure, and body temperature. Other effects include increased urine production, higher blood sugar levels, and delayed sleep. Extremely high doses of caffeine may cause an upset stomach, diarrhea, sleeplessness, shakiness, headache, and nervousness.

**Cocaine and crack**

See the “Cocaine and Crack” information sheet.

**“Ice”**

An extremely dangerous drug, “Ice” is a type of methamphetamine (see next page) manufactured illegally, mainly in southeast Asia. Its odorless white crystals are smoked in a small pipe. Ice is highly addictive and far more powerful than other amphetamines. Its effect is immediate and lasts from 12-24 hours. The “crash” is even more severe than after using other amphetamines. The user may become aggressive, have hallucinations, feel paranoid, or die from kidney failure. “Ice babies,” born addicted as a result of their mothers’ addiction, may be permanently damaged physically and emotionally.
Major Drug Categories

Stimulants

Methamphetamines (METH-am-fet-uh-mins)
This is a form of amphetamine with slang names such as “crank” and “meth.” A common prescription drug name is Methadone. Methamphetamines come as white powder, pills, or a wax-like rock. They are swallowed, injected, or inhaled. More information about methamphetamines is provided on pages 14-15

Methcathinone (meth-CATH-uh-non)
Called “Cat,” this drug looks like salt crystals and is usually inhaled. Manufactured illegally, methcathinone is a form of methamphetamine and has similar effects.

Nicotine
See the “Tobacco” information sheet.

Effects on the Body and Health

Brain. Stimulants speed up the brain’s functioning. They can cause shakiness, loss of coordination, and physical collapse. Heavy use can result in permanent brain damage.

Many types of stimulants are highly addictive.

Use of amphetamines is often followed by an extremely difficult period of withdrawal called “crashing.” During withdrawal, users may experience convulsions and paranoia.

Eyes. Dilated (widened) pupils and redness are a common side effect.

Heart, blood circulation. Stimulants speed up and strain the cardiovascular system, which can lead to rapid heartbeat, high blood pressure, and irregular heart rhythm. An injection of a stimulant can create a sudden increase in blood pressure, resulting in a stroke or heart failure.

Digestive system. Stimulants decrease the appetite. People under the effects of strong stimulants, like amphetamines and cocaine, may go for a long time without eating or sleeping. Lack of food and sleep leaves the user open to infections and illness.

Effects on Behavior

Even mild use of stimulants can produce anxiety, moodiness, and restlessness. Larger doses can lead to severe nervousness and depression when the effect of the drug begins to wear off.

People under the effects of stimulants may seem disoriented and distracted, talk very fast, and not make sense. This is sometimes referred to as “speeding.”

Amphetamine use can lead to strange, sometimes violent, behavior as the user develops a severe mental disturbance called “amphetamine psychosis.”

Did You Know?

► Some people use stimulants to counteract the drowsiness or “down” feeling caused by depressants like sleeping pills or alcohol. The up-and-down cycle that results from using both stimulants and depressants can cause greater damage to the body than the effects of either type of drug alone.

► Many stimulants have been illegally manufactured as “lookalike” drugs. (See “Designer Drugs and Lookalikes.”)

► Ritalin is a prescription stimulant commonly used to treat attention deficit disorder in children. Misuse of Ritalin can produce the same harmful effects as the use of amphetamines. Some addicts try to dissolve Ritalin tablets in water and inject the solution. However, solid substances from the tablets can block their blood vessels, and damage their lungs and eyes.
Methamphetamine

Drug Name
Methamphetamine

Slang Names
Ice, crystal, glass, tina

Description
Methamphetamine is a very addictive stimulant drug that activates certain systems in the brain. It is chemically related to amphetamine but, at comparable doses, the effects of methamphetamine are much more potent, longer lasting, and more harmful to the central nervous system (CNS).

Methamphetamine is a Schedule II stimulant, which means it has a high potential for abuse and is available only through a prescription that cannot be refilled. It can be made in small, illegal laboratories, where its production endangers the people in the labs, neighbors, and the environment. Street methamphetamine is referred to by many names, such as "speed," "meth," and "chalk." Methamphetamine hydrochloride, clear chunky crystals resembling ice, which can be inhaled by smoking, is referred to as "ice," "crystal," "glass," and "tina."

Methamphetamine is taken orally, intranasally (snorting the powder), by needle injection, or by smoking. Abusers may become addicted quickly, needing higher doses and more often. At this time, the most effective treatments for methamphetamine addiction are behavioral therapies such as cognitive behavioral and contingency management interventions.

Effects on the Body and Health
Methamphetamine increases the release of very high levels of the neurotransmitter dopamine, which stimulates brain cells, enhancing mood and body movement. Chronic methamphetamine abuse significantly changes how the brain functions. Animal research going back more than 30 years shows that high doses of methamphetamine damage neuron cell endings. Dopamine- and serotonin-containing neurons do not die after methamphetamine use, but their nerve endings ("terminals") are cut back, and regrowth appears to be limited. Noninvasive human brain imaging studies have shown alterations in the activity of the dopamine system. These alterations are associated with reduced motor speed and impaired verbal learning. Recent studies in chronic methamphetamine abusers have also revealed severe structural and functional changes in areas of the brain associated with emotion and memory, which may account for many of the emotional and cognitive problems observed in chronic methamphetamine abusers.

Taking even small amounts of methamphetamine can result in increased wakefulness, increased physical activity, decreased appetite, increased respiration, rapid heart rate, irregular heartbeat, increased blood pressure, and hyperthermia. Other effects of methamphetamine abuse may include irritability, anxiety, insomnia, confusion, tremors, convulsions, and cardiovascular collapse and death. Long-term effects may include paranoia, aggressiveness, extreme anorexia, memory loss, visual and auditory hallucinations, delusions, and severe dental problems.
Also, transmission of HIV and hepatitis B and C can be a consequence of methamphetamine abuse. Among abusers who inject the drug, infection with HIV and other infectious diseases is spread mainly through the re-use of contaminated syringes, needles, and other injection equipment by more than one person. The intoxicating effects of methamphetamine, however, whether it is injected or taken other ways, can alter judgment and inhibition and lead people to engage in unsafe behaviors. Methamphetamine abuse actually may worsen the progression of HIV and its consequences; studies with methamphetamine abusers who have HIV indicate that the HIV causes greater neuronal injury and cognitive impairment compared with HIV-positive people who do not use drugs.

**Effects on Behavior**

In addition to being addicted to methamphetamine, chronic methamphetamine abusers exhibit symptoms that can include violent behavior, anxiety, confusion, and insomnia. They also can display a number of psychotic features, including paranoia, auditory hallucinations, mood disturbances, and delusions. The paranoia can result in homicidal as well as suicidal thoughts.

- It is estimated that 1 pound of methamphetamine produced in a clandestine lab yields 5 to 6 pounds of hazardous waste. The resultant environmental damage to property, water supplies, farmland, and vegetation where labs have operated costs local jurisdictions thousands of dollars in clean up and makes some areas unusable for extended periods of time.
Alcohol

Drug Name
Alcohol, ethyl alcohol, ethanol

Slang Names
Booze, juice, sauce

Description
Alcohol is a depressant and slows down the body's functioning. (For more information, see "Depressants.") Alcohol is a liquid made by fermenting (causing chemical changes in) various organic substances, such as grapes and certain grains. It comes in beer, wine, wine coolers, and in many forms of liquor, including whiskey, gin, vodka, rum, and brandy.

In the United States, it is legal for people age 21 and over to buy and use alcohol. In Canada, the legal age varies from province to province.

Effects on the Body and Health

**How alcohol travels through the body.** Alcohol passes from the mouth through the esophagus (eh-SAHF-uh-gus) into the stomach and intestines. From there it quickly enters the bloodstream and affects most of the body organs. The liver and the kidneys filter out some of the poisons in the alcohol.

**Brain.** Using alcohol cuts down the flow of oxygen to the brain. The first area affected by alcohol is the part controlling judgment. Other effects may include poor coordination and balance. Alcohol can dull the drinker's senses, and heavy drinking can permanently destroy brain cells. As the brain slows down, it, in turn, slows the heartbeat, breathing rate, and digestion. Heavy drinking can result in unconsciousness or death.

**Eyes.** Alcohol relaxes the eye muscles, making it difficult to focus.

**Heart.** Alcohol weakens the heart muscle, cuts down the amount of blood pumped to and from the heart, and can produce dangerous changes in the rhythm of the heartbeat. Drinking alcohol can lead to high blood pressure. It also widens blood vessels near the surface of the skin, causing loss of heat.
Lungs, breathing. Small doses of alcohol can increase the breathing rate, while large doses are more likely to slow it down.

Digestive system. Alcohol irritates the lining of the entire digestive system, including the throat, esophagus, stomach, intestines, and pancreas. It can cause problems ranging from vomiting to ulcers to cancer.

The liver, which tries to filter alcohol out of the bloodstream, suffers more than any other organ. Alcohol eventually kills liver cells. Heavy drinking over a long period of time can lead to cirrhosis (suh-RO-sis) of the liver, a leading cause of death among alcoholics.

Muscles. Alcohol can lead to muscle weakness and breakdown.

Reproductive system. Alcohol goes directly from the mother's bloodstream to the fetus (unborn baby). Drinking can cause a number of birth defects, called the "fetal alcohol syndrome." This syndrome is the third leading cause of mental retardation that is present at birth. The only safe amount of alcohol during pregnancy is no alcohol.

Regular, heavy drinking also results in malnutrition, infections of body organs, and related illnesses.

Effects on Behavior

The first area of the brain affected by alcohol is the part controlling judgment. Alcohol also affects the drinker's thinking, mood, and memory.

Drinking alcohol interferes with coordination, causing problems in walking, talking, operating machines, and driving motor vehicles.

Some people become more depressed, more angry, or even more violent or suicidal after drinking alcohol. Because alcohol affects the drinker's judgment and mood, it is frequently linked with crime and violence.

DID YOU KNOW?

- Alcohol is definitely a drug. Anyone who has an uncontrollable need for alcohol has a drug problem and is called an alcoholic. Another word for dependence on alcohol is alcoholism. Many people consider alcoholism a disease.

- Alcohol is harmful to children’s mental, physical, and emotional growth. Children and adolescents, whose bodies are still developing, can become dependent on (addicted to) alcohol much more quickly than adults. It takes only six months to two years for a teenager to become addicted. Alcohol is the number one drug problem of teenagers in Canada and the United States.
Drug Information

Alcohol

- A 12-ounce can of beer or ale contains about the same amount of alcohol as a five ounce glass of wine, a wine cooler, or a shot of liquor. Each has about one-half ounce of alcohol.

- Wine coolers are alcoholic beverages even though they're often advertised as if they're harmless, like soft drinks.

- A person doesn't have to be an alcoholic to have problems with alcohol. Serious problems—car crashes, drownings, accidents, and so on—can occur even among drinkers who are not dependent on alcohol.

- The three leading causes of death for 16- to 24-year-olds are traffic crashes, homicides, and suicides. Alcohol plays a major role in all three causes.

- Drinking alcohol while using other drugs, especially depressants like sleeping pills, is extremely dangerous and can cause death. The effect of the two chemicals is more serious than the effect of either one alone.

- In the early 1980s, 60 percent of all traffic deaths involved alcohol. That percentage dropped as more and more people realized that drinking and driving is dangerous and foolish. Unfortunately, the percentage of alcohol-related traffic deaths started to rise again in the mid-1990s and now stands at about 40 percent. These are avoidable deaths.

- 40% (17,013) of traffic fatalities were alcohol-related in the US in 2003 (Traffic Safety Facts, National Center for Statistics and Analysis, NHTSA, 2003)

- In 2005, 16,885 people died in alcohol-related motor vehicle crashes, accounting for 39% of all traffic-related deaths in the United States (NHTSA 2006).

- Although alcohol is the most widely used drug among youth, one-third of all adults choose not to drink, and another one-third drink very rarely.

Note: Also see the “Chemical Dependence/Addiction” section in this guide.
Drug Name
Cocaine and crack

Slang Names
Cocaine: snow, coke, flake, blow, nose candy, Big C
Crack: rock

Description
Cocaine is a powerfully addictive stimulant drug. The powdered, hydrochloride salt form of cocaine can be snorted or dissolved in water and injected. Crack is cocaine that has not been neutralized by an acid to make the hydrochloride salt. This form of cocaine comes in a rock crystal that can be heated and its vapors smoked. The term "crack" refers to the crackling sound heard when it is heated.

It is illegal to buy or sell any form of cocaine.

Brain, central nervous system. Cocaine use causes headaches, memory loss, and problems with concentration. Long-term use can lead to hallucinations (seeing things that aren’t there), restlessness, sleeplessness, and convulsions (uncontrollable physical movements).

Eyes. Dilated (widened) pupils are a common side effect.

Nose, throat. Sniffing cocaine can cause constant stuffy nose and numbness in the nose and the back of the throat. The lining of the nose may be destroyed. Serious bleeding and other problems in the nasal passages may require surgery to repair. Other problems include chronic bronchitis, hoarseness, and complete loss of the voice.

Effects on the Body and Health

How cocaine and crack travel through the body. Cocaine and crack usually enter the body through the mouth, nose, and throat. Then they pass into the lungs and the bloodstream and affect the user very quickly (crack within ten seconds).

Both drugs are highly addictive.
Heart and blood circulation. Cocaine or crack use can cause rapid or irregular heart beat and increased blood pressure, resulting in heart failure, overall failure of blood circulation (shock), heart attack, and death. When the heart works harder, it beats faster. It may work so hard that it temporarily loses its natural rhythm. This is called fibrillation, and it can be very dangerous because it stops the flow of blood through the body. Many of cocaine's effects on the heart are actually caused by cocaine's impact on the brain -- the body's control center.

Lungs. Crack smokers risk serious damage to their lungs, including diseases similar to pneumonia.

Digestive system. Problems include severe dehydration, stomach pains, an upset stomach, loss of appetite, and malnutrition resulting from poor eating habits.

Reproductive system. Using either cocaine or crack during pregnancy can result in the birth of an addicted baby with physical and emotional problems.

Use of cocaine and crack can also worsen existing medical conditions including bronchitis, asthma, anxiety, depression, poor blood circulation, heart problems, diabetes, and epilepsy.

Effects on Behavior

Anxiety is a common effect of using any form of cocaine. Wild mood swings, delusions, paranoia, and problems in thinking are also common. Users frequently become out of control and violent.

Severe depression can occur when the cocaine or crack wears off and the user “crashes.” This depression can lead to suicide.

Loss of interest in friends and everything not related to crack or cocaine is also common.

DID YOU KNOW?

- Both crack and cocaine are so addictive that users will often do anything they can to obtain more. Crack is more addictive than heroin and more powerful than cocaine in its powder form. Users can become addicted to crack after trying it once or twice.

- Although crack use is a serious problem in inner cities, it occurs in all parts of the population.

- A recent survey found that users of cocaine are likely to have used most of the other harmful drugs, including alcohol, marijuana, hallucinogens, other stimulants, and depressants.

- “Speedballing” means injecting a combination of cocaine and heroin. “Spaceballing” means sprinkling liquid PCP on crack before smoking it. Both are exceedingly dangerous.

- Crime is an important part of the cocaine and crack problem. The sale and use of cocaine and crack are a main focus of law enforcement efforts in the United States and Canada. Illegal drug sales amount to hundreds of millions of dollars every year. People who use cocaine or crack aren’t just breaking the law themselves; they’re helping to support criminals and murderers throughout the world.
Designer Drugs

Both the United States and Canada have laws which describe the exact chemical makeup of all drugs that are illegal to manufacture or sell without a doctor's prescription.

To get around these laws, illegal drug manufacturers produce imitations of the federally controlled drugs by making small changes in their chemistry. Most of these drugs are narcotic pills and tablets.

Because chemists can change the chemical makeup of designer drugs very quickly, they can manufacture new drugs faster than they can be outlawed. And since the chemical makeup of these drugs varies from one underground laboratory to another, their health hazards can be even more serious than those of the drugs they resemble. In fact, they may be several hundred times stronger. According to one drug expert, "all the junkies in New York could be stoned for a year on the contents of a briefcase."

Recent laws have significantly reduced the supply of certain chemicals needed to make designer drugs. These laws have made it more difficult for underground laboratories to find the raw materials they need to produce illegal drugs.

All designer drugs:
- Are produced by illegal underground chemists, who may mix them with various harmful chemicals.
- Are extremely dangerous, often fatal.

Lookalikes

"Lookalike" drugs are also made in illegal laboratories and resemble other illegal drugs. However, they tend to be mixtures of caffeine (a relatively mild drug found in coffee) and various chemicals used in cold pills.

Lookalikes are sold illegally as amphetamines, depressants, or even cold pills. Like designer drugs, they are untested and illegal. They can produce a variety of serious health problems.
**Inhalants/Sniffing**

**Drug Name**
Inhalants, deliriants

**Slang Name**
Huffing. Also see “Description.”

**Description**
Many household products that evaporate easily can be abused by sniffing or inhaling. Some inhalants or deliriants act as depressants, slowing the way the body works. Others are stimulants, causing the heart to beat so fast it seems to be jumping out of the user’s chest. Some inhalants cause hallucinations; all are dangerous.

One form of inhalants is solvents, which are found in cleaning fluids, model glue, plastic and rubber cement, gasoline, paint thinner, typewriter correction fluid, aerosol sprays, and adhesives, among other products.

Other inhalants are not so readily available. Amyl nitrite (poppers, snapper, pearls, amices) and butyl nitrite (rush, bolt, bullet, locker room) are similar chemicals. Both are often sold illegally in small capsules.

Nitrous oxide (laughing gas, whippets) is also considered an inhalant, although it is used mainly as an anesthetic to put people to sleep during surgery.

**Effects on the Body and Health**

**How inhalants travel through the body.** The vapors from inhalants go from the nose or mouth to the bloodstream and quickly affect the brain, heart, and lungs. Unlike most other drugs, inhalants are not digested in the stomach and intestines or filtered out by the kidneys and liver. Since doses cannot be precisely measured, an accidental overdose is possible, sometimes resulting in SSD (“sudden sniffing death”).

**Brain.** Inhalants distort perception and lead to headaches, dizziness, and problems in coordination. They can cause permanent brain damage.

**Eyes.** Inhalant use can lead to blindness.
Heart, blood. Solvents and aerosol sprays increase the heart rate and can cause permanent heart damage. Sniffing some inhalants can produce rushes of adrenaline (uh-DREN-uh-lin), a heart-stimulating hormone released during crises or sudden surprises. This can also cause sudden death.

Respiratory system. Inhalants often cause sneezing, coughing, nosebleeds, and severe irritation to the lining of the nose. They tend to slow down breathing rates. The wide range of chemicals in inhalants can cause permanent lung damage or suffocation.

Digestive system. Inhalants can cause an upset stomach and loss of appetite. They can also damage the liver and kidneys as these organs try to filter out the poisons.

Muscles. Effects include weakness, shakiness, and staggering.

Long-term inhalant use can lead to cancer, genetic damage, severe anemia, and leukemia. Inhalants can also lead to death by disrupting the normal heart rhythm, which can lead to cardiac arrest. Use of inhalants can cause hepatitis, liver failure, and muscle weakness. Certain inhalants can also cause the body to produce fewer of all types of blood cells, which may result in life-threatening aplastic anemia.

Effects on Behavior

The effects of inhalants are felt almost immediately. The user may feel dizzy or "high" for just a few moments up to a half hour. Clumsiness, poor judgment, slurred speech, and giddiness are likely.

Aggressive behavior is common among users. That, plus poor coordination and poor judgment, can lead to accidental death.

DID YOU KNOW?

- Inhalants, because they are easy to obtain and low in cost, are most often used by youth between the ages of 7 and 17. Use may begin innocently when children accidentally inhale fumes from markers or gasoline. More likely, young children start when they see friends, siblings, or older neighborhood youth sniffing or huffing.

- Users sometimes put their heads in plastic bags to sniff inhalants. The user may lose consciousness while inhaling the drug. Then he or she suffocates by breathing concentrated drug fumes that lack oxygen.
Marijuana/Cannabis

Drug Name
Marijuana (mar-ih-WAN-a), cannabis (CAN-uh-bis), sinsemilla (sin-suh-MEE-ya)

Description
Marijuana is the most commonly abused illegal drug in the United States. A dry, shredded green/brown mix of flowers, stems, seeds, and leaves of the hemp plant Cannabis sativa, it usually is smoked as a cigarette (joint, nail), or in a pipe (bong). It also is smoked in blunts, which are cigars that have been emptied of tobacco and refilled with marijuana, often in combination with another drug. It might also be mixed in food or brewed as a tea. As a more concentrated, resinous form it is called hashish and, as a sticky black liquid, hash oil. Marijuana smoke has a pungent and distinctive, usually sweet-and-sour odor. There are countless street terms for marijuana including pot, herb, weed, grass, widow, ganja, and hash, as well as terms derived from trademarked varieties of cannabis, such as Bubble Gum, Northern Lights, Fruity Juice, Afghani #1, and a number of Skunk varieties.

The main active chemical in marijuana is THC (delta-9-tetrahydrocannabinol). The membranes of certain nerve cells in the brain contain protein receptors that bind to THC. There are many of these receptors in parts of the brain that control memory, thought, concentration, time and depth perception, and coordinated movement. Once securely in place, THC kicks off a series of cellular reactions that ultimately lead to the high that users experience when they smoke marijuana.

Effects on the Body and Health

How marijuana travels through the body. When marijuana is smoked, over 421 chemicals in the smoke enter the lungs and then quickly pass into the bloodstream. If marijuana is eaten in food, the chemicals go down the throat to the stomach and intestines, where they also enter the bloodstream. The bloodstream takes these chemicals to all the body parts, including the brain. The liver and kidneys clean some of the poisons out of the blood.

More than 61 of the chemicals in marijuana are called cannabinoids (CAN-uh-bin-oids). Cannabinoids are poisons that can damage living cells by interfering with their ability to function normally.

THC, the most damaging cannabinoid in marijuana, is absorbed by fatty tissues—
especially the brain, the central nervous system, and the reproductive organs. A week after THC enters the body, one-fourth to one-third of it can still remain. Traces may stay in the body for several weeks or more. This means the harmful effects of marijuana on the body continue even if the person has stopped using marijuana. It works like a time-release cold tablet that keeps affecting the user days later.

**Effects on the Brain.** Scientists have learned a great deal about how THC acts in the brain to produce its many effects. When someone smokes marijuana, THC rapidly passes from the lungs into the bloodstream, which carries the chemical to organs throughout the body, including the brain.

By activating the brain receptors, THC interferes with the normal functioning of the cerebellum, the part of the brain most responsible for balance, posture, and coordination of movement. The cerebellum coordinates the muscle movements ordered by the motor cortex. Nerve impulses alert the cerebellum that the motor cortex has directed a part of the body to perform a certain action. Almost instantly, impulses from that part of the body inform the cerebellum as to how the action is being carried out. The cerebellum compares the actual movement with the intended movement and then signals the motor cortex to make any necessary corrections. In this way, the cerebellum ensures that the body moves smoothly and efficiently.

The short-term effects of marijuana can include problems with memory and learning; distorted perception; difficulty in thinking and problem solving; loss of coordination; and increased heart rate. Research findings for long-term marijuana abuse indicate some changes in the brain similar to those seen after long-term abuse of other major drugs.

**Effects on the Heart** One study has indicated that an abuser’s risk of heart attack more than quadruples in the first hour after smoking marijuana. The researchers suggest that such an effect might occur from marijuana’s effects on blood pressure and heart rate and reduced oxygen-carrying capacity of blood.

**Effects on the Lungs** Marijuana abuse also has the potential to promote cancer of the lungs and other parts of the respiratory tract because it contains irritants and carcinogens. In fact, marijuana smoke contains 50 to 70 percent more carcinogenic hydrocarbons than does tobacco smoke. These facts suggest that, puff for puff, smoking marijuana may be more harmful to the lungs than smoking tobacco.

**Reproductive system, hormones.** Hormones in both females and males can be seriously affected by marijuana. In females, long-term use of marijuana may interfere with the menstrual cycle; in males it may affect sperm production. The most important male hormone, testosterone, decreases by 25 to 35 percent within three hours after smoking marijuana. Using marijuana during pregnancy can cause birth defects in the unborn baby.

Research has shown that some babies born to women who abused marijuana during their pregnancies display altered responses to visual stimuli, increased tremulousness, and a high-pitched cry, which may indicate neurological problems in development. During the preschool years, marijuana-exposed children have been observed to perform tasks involving sustained attention and memory more poorly than nonexposed children do. In the school years, these children are more likely to exhibit deficits in problem-solving skills, memory, and the ability to remain attentive.

**Immune system.** Marijuana can damage the body's immune system, which helps protect the body from disease. When the immune system isn't working properly, the user will get sick much more easily.

Other physical side effects include bloodshot eyes, shaking, headaches, and a drop in body temperature.
**Effects on Behavior**

Marijuana affects the user's memory, attention span, speaking, listening, thinking, reading comprehension, problem solving, and decision making. Young people who use marijuana regularly can have problems keeping up in school.

People who use marijuana regularly can have trouble with normal, everyday activities. Heavy marijuana users may lose their motivation to achieve in life, preferring to spend their time getting high on marijuana. Marijuana can make emotional problems worse. Some marijuana users become fearful and confused, and others grow suspicious or aggressive. Paranoia and panic attacks are frequent.

**Addictive Potential**

Long-term marijuana abuse can lead to addiction for some people; that is, they abuse the drug compulsively even though it interferes with family, school, work, and recreational activities. Drug craving and withdrawal symptoms can make it hard for long-term marijuana smokers to stop abusing the drug. People trying to quit report irritability, sleeplessness, and anxiety. They also display increased aggression on psychological tests, peaking approximately one week after the last use of the drug.

Recent research in animals has also suggested that long-term use of marijuana (THC) produces some changes in the limbic system that are similar to those that occur after long-term use of other major drugs of abuse such as cocaine, heroin, and alcohol. These changes are most evident during withdrawal from THC. During withdrawal, there are increases in both the levels of a brain chemical involved in stress and certain emotions and the activity of neurons in the amygdala. These same kinds of changes also occur during withdrawal from other drugs of abuse, suggesting that there may be a common factor in the development of drug addiction.

**DID YOU KNOW?**

- In 1974, marijuana had a THC content of less than 1 percent. By 1996, the THC content had risen as high as 17 percent. Using marijuana might have been thought of as harmless in 1974, but today it is dangerous.
- Using marijuana affects a person's judgment and reaction time. According to one study, one of every three people injured in car or motorcycle crashes had been smoking marijuana.
- Four out of five high school seniors—a great majority of young people—do not use marijuana. The reason students commonly give for not using marijuana is that they have learned about its harmful effects on their health.
Prescription and Over-the-Counter Drugs

Description

About 500,000 types of over-the-counter drugs can be purchased in drug stores, pharmacies, grocery stores, and supermarkets. They are called “over-the-counter” because anyone can buy them by walking up to a counter. They include aspirin, cold remedies, and diet pills.

Prescription drugs are almost always more powerful than over-the-counter drugs and potentially more dangerous. They can be purchased only with a doctor’s written prescription. The only people who can legally sell prescription drugs are licensed pharmacists.

Prescription medications such as pain relievers, tranquilizers, stimulants, and sedatives are very useful treatment tools, but sometimes people do not take them as directed and may become addicted. Pain relievers make surgery possible, and enable many individuals with chronic pain to lead productive lives. Most people who take prescription medications use them responsibly. However, the inappropriate or nonmedical use of prescription medications is a serious public health concern. Nonmedical use of prescription medications like opioids, central nervous system (CNS) depressants, and stimulants can lead to addiction, characterized by compulsive drug seeking and use.

Patients, healthcare professionals, and pharmacists all have roles in preventing misuse and addiction to prescription medications. For example, when a doctor prescribes a pain relief medication, CNS depressant, or stimulant, the patient should follow the directions for use carefully, learn what effects the medication could have, and determine any potential interactions with other medications. The patient should read all information provided by the pharmacist. Physicians and other healthcare providers should screen for any type of substance abuse during routine history-taking, with questions about which prescriptions and over-the-counter (OTC) medicines the patient is taking and why. Providers should note any rapid increases in the amount of a medication needed or frequent requests for refills before the quantity prescribed should have been used, as these may be indicators of abuse.

How can medicine be helpful?

By preventing sickness. Vaccines are prescription drugs that help prevent illnesses such as polio, whooping cough, measles, and the mumps. Other drugs help prevent sickness by controlling conditions so they don’t become problems. For example, people who have diabetes often take insulin to help control the amount of sugar in their blood.

By helping heal the body. Some prescription drugs, such as penicillin, fight infections in our ears, eyes, throat, and other places. Some over-the-counter medicines kill germs in small cuts and scrapes.

CAUTION!

Take medicine only from a trusted adult.
Drug Information

Prescription and Over-the-Counter Drugs

By helping stop pain. Aspirin and many other over-the-counter drugs help control aches and pains while our bodies heal. Doctors prescribe stronger painkilling medicines after serious accidents or surgery. Dentists use forms of novocaine during treatment.

By helping to control symptoms. Sometimes medicine won't help a problem, like a cold, go away, but it can make us feel better while our bodies heal themselves. Medicines stop our cough at night so we can sleep, clear up our stuffy nose, or stop it from dripping.

Why do people misuse and overuse medicines?

Most children watch thousands of TV commercials for over-the-counter drugs. This advertising is, in effect, a negative form of drug education. Children learn through the ads and commercials that over-the-counter drugs can help them avoid common health problems. But these ads tell only part of the story. They don't teach people how to stay healthy without drugs—by eating right, exercising, and taking care of their bodies.

One reason for all this advertising is the huge profits manufacturers make from legal drugs—more than $20 billion every year.

Guidelines for using over-the-counter and prescription drugs

All medicines, even over-the-counter drugs, should be used only with a trusted adult's help by following the instructions on the container. Taking more than the recommended dose of even a simple medicine like aspirin can lead to consequences ranging from an upset stomach to death. Prescription drugs must be used only by the person for whom the prescription was written.

Here are important rules for children to follow in taking any medicine:

- Take it only from a trusted adult.
- Take only the amount of medicine your doctor or another trusted adult says to take.
- Never share your medicine with another person.
- Never take someone else's medicine.
- If you feel ill after taking a medicine, tell a trusted adult right away. You may be experiencing a harmful side effect.
- Never tell young children "medicine is candy."
- Never give medicine to anyone, and always

How can medicine be harmful?

All prescription and over-the-counter drugs can be dangerous, mainly through overdose and misuse. Health hazards range from dizziness to death.

Prescription and over-the-counter drugs can also cause harmful side effects—unwanted effects on the body or mind, such as headaches or an upset stomach. Any side effects should be reported immediately to a trusted adult.
make sure younger children cannot reach medicines.
• Make sure that child-proof caps are properly replaced so young children can’t use the drug.

What the labels tell us
Labels on prescription drugs usually list the patient’s name, the doctor’s name, the drug and the dose the doctor says to take, the pharmacy, the date, and the number of refills allowed. The labels often include directions for using the drug, such as “Take with meals.”

DID YOU KNOW?

► Besides paying for thousands of ads and commercials for over-the-counter medications, drug companies now advertise prescription drugs directly to consumers. They use newsletters, magazine ads, television commercials, hotlines, and Web sites. The amount drug companies spend on these direct ads to consumers continues to rise.

► Each year, more people die from prescription drugs obtained legally, but used improperly, than from all illegal substances combined.

► One of every four hospital admissions is the result of the misuse of medical drugs. The most common mistake is not following doctor’s directions for taking the medication. For every dollar spent on prescription medications, another dollar must be spent to treat the problems resulting from misuse of these drugs.

► Despite laws that require child-resistant packages for prescription drugs, many thousands of young children are poisoned each year by accidentally swallowing someone else’s medicine.

► Fever is one way our bodies fight disease. A very high fever can damage the body and may require medicine to bring it down. But reducing a low fever by taking aspirin or other medicine can actually slow the healing process.

► Contrary to what most people think, many over-the-counter medicines have not been tested for effectiveness or safety. Medical advisory panels have concluded that only about one out of every three ingredients in over-the-counter products is safe and effective for its intended purpose.
Steroids

Description

Anabolic-androgenic steroids are man-made substances related to male sex hormones. “Anabolic” refers to muscle-building, and “androgenic” refers to increased masculine characteristics. “Steroids” refers to the class of drugs. These drugs are available legally only by prescription, to treat conditions that occur when the body produces abnormally low amounts of testosterone, such as delayed puberty and some types of impotence. They are also prescribed to treat body wasting in patients with AIDS and other diseases that result in loss of lean muscle mass. Abuse of anabolic steroids, however, can lead to serious health problems, some irreversible.

Today, athletes and others abuse anabolic steroids to enhance performance and also to improve physical appearance. Anabolic steroids are taken orally or injected, typically in cycles of weeks or months (referred to as “cycling”), rather than continuously. Cycling involves taking multiple doses of steroids over a specific period of time, stopping for a period, and starting again. In addition, users often combine several different types of steroids to maximize their effectiveness while minimizing negative effects (referred to as “stacking”).

Effects on the Body and Health

The major side effects from abusing anabolic steroids can include liver tumors and cancer, jaundice (yellowish pigmentation of skin, tissues, and body fluids), fluid retention, high blood pressure, increases in LDL (bad cholesterol), and decreases in HDL (good cholesterol). Other side effects include kidney tumors, severe acne, and trembling. In addition, there are some gender-specific side effects:

- For men — shrinking of the testicles, reduced sperm count, infertility, baldness, development of breasts, increased risk for prostate cancer.
- For women — growth of facial hair, male-pattern baldness, changes in or cessation of the menstrual cycle, enlargement of the clitoris, deepened voice.
- For adolescents — growth halted prematurely through premature skeletal maturation and accelerated puberty changes. This means that adolescents risk remaining short for the remainder of their lives if they take anabolic steroids before the typical adolescent growth spurt.

In addition, people who inject anabolic steroids run the added risk of contracting or transmitting HIV/AIDS or hepatitis, which causes serious damage to the liver.
Effects on Behavior

Scientific research also shows that aggression and other psychiatric side effects may result from abuse of anabolic steroids. Many users report feeling good about themselves while on anabolic steroids, but researchers report that extreme mood swings also can occur, including manic-like symptoms leading to extreme violence. Depression often is seen when the drugs are stopped and may contribute to dependence on anabolic steroids.

DID YOU KNOW?

- Steroids can actually harm an athlete's endurance. Athletes on steroids may have short bursts of great energy but then be unable to compete at their normal levels. Steroids hurt the athlete's abilities over the long term.

- Because steroids make muscles grow, but not tendons and ligaments, athletes who use these drugs are frequently injured and take a long time to heal.

- In females, steroids can cause a deeper voice, more body hair, smaller breasts, and fewer menstrual cycles. In males, the use of steroids can cause larger breasts, smaller testicles, and early balding. Both sexes may experience severe skin problems and high blood pressure.

- The use of steroids can permanently stop the lengthening of bones in teenagers, stunting their growth.

- Illegal suppliers of steroids often instruct the user to take the drug in dangerously high doses.
MDMA/Ecstasy

Description

MDMA/E (or 3,4-methylenedioxyamphetamine) is often called a "club drug" because people frequently take it at all-night dance parties ("raves"), bars, clubs, and concerts. Other club drugs include ketamine, GHB (gamma hydroxybutyrate), Rohypnol (flunitrazepam), and methamphetamine. People may take MDMA to have enough energy to keep dancing or partying all night or for a feeling of emotional warmth and a general sense of well-being. MDMA acts as both a stimulant and a hallucinogen. Unfortunately, users may not realize that MDMA may hurt them. In some cases, its abuse can be fatal.

MDMA is synthetic—it doesn't come from a plant like marijuana does. MDMA users often make the drug in secret "labs"—in trailers, basements, and even kitchens—hidden around the country. Other chemicals or substances are often added to, or substituted for, MDMA in ecstasy tablets, such as caffeine, dextromethorphan (in some cough syrups), amphetamines, or cocaine. Makers of ecstasy can add anything they want to the drug. So the purity of ecstasy is always in question.

Effects on the Body and Health

The physical effects of ecstasy use include faintness, nausea, involuntary body movements, chills or sweating, rapid eye movement, and problems sleeping. Internally the heart rate increases and blood pressure rises, which may lead to heart or kidney failure.

Psychological effects include impairment of memory and judgment, depression, anxiety, paranoia, and hallucinations. Some users claim enhanced mental and emotional clarity, as well as euphoria.

Combining ecstasy with alcohol or other combinations of so-called "club drugs" (often depressants) can lead to serious consequences, even death.

Effects on Behavior

Those taking ecstasy may react violently or irrationally. While the immediate effects of use seem to fade after 24 hours, recent studies show side effects, including paranoia, can surface weeks later.

Chronic use of ecstasy seems to affect parts of the brain important to thought, memory, and even pleasure—all areas that play a role in behavior.

DID YOU KNOW?

- Dancers who use ecstasy can end up extremely dehydrated.
- Studies indicate that the female hormone estrogen may make young women more vulnerable to the lethal effects of ecstasy than males.
- Makeshift laboratories that produce illegal "designer" and "club" drugs, such as ecstasy, can vary the strength of the drugs and supply harmful combinations of drugs.
Cigarettes and Other Tobacco Products

Drug Name

The main drug in tobacco is nicotine (NIK-uh-teen).

Slang Name

Smokes, chew

Description

Through the use of cigarettes, cigars, and chewing tobacco, nicotine is one of the most heavily used addictive drugs in the United States.

Since 1964, 28 Surgeon General's reports on smoking and health have concluded that tobacco use is the single most avoidable cause of disease, disability, and death in the United States. In 1988, the Surgeon General concluded that cigarettes and other forms of tobacco, such as cigars, pipe tobacco, and chewing tobacco, are addictive and that nicotine is the drug in tobacco that causes addiction. Nicotine provides an almost immediate "kick" because it causes a discharge of epinephrine from the adrenal cortex. This stimulates the central nervous system and endocrine glands, which causes a sudden release of glucose. Stimulation is then followed by depression and fatigue, leading the user to seek more nicotine.

Statistics from the Centers for Disease Control and Prevention indicate that tobacco use remains the leading preventable cause of death in the United States, causing approximately 440,000 premature deaths each year and resulting in an annual cost of more than $75 billion in direct medical costs attributable to smoking. (See www.cdc.gov/tobacco/issue.htm.) Over the past four decades, cigarette smoking has caused an estimated 12 million deaths, including 4.1 million deaths from cancer, 5.5 million deaths from cardiovascular diseases, 2.1 million deaths from respiratory diseases, and 94,000 infant deaths related to mothers smoking during pregnancy. (See www.cdc.gov/nccdphp/publications/aag/os.htm.)

Secondhand smoke, also known as environmental tobacco smoke, is a mixture of the smoke given off by the burning end of tobacco products (sidestream smoke) and the mainstream smoke exhaled by smokers. It is a complex mixture containing many chemicals (including formaldehyde, cyanide, carbon monoxide, ammonia, and nicotine), many of which are known carcinogens. Nonsmokers exposed to secondhand smoke at home or work increase their risk of developing heart disease by 25 to 30 percent and lung cancer by 20 to 30 percent. In addition, secondhand smoke causes respiratory problems in nonsmokers such as coughing, phlegm, and reduced lung function. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome, acute respiratory infections, ear problems, and more severe asthma.
Effects on the Body and Health

Nicotine is absorbed readily from tobacco smoke in the lungs, and it does not matter whether the tobacco smoke is from cigarettes, cigars, or pipes. Nicotine also is absorbed readily when tobacco is chewed. With regular use of tobacco, levels of nicotine accumulate in the body during the day and persist overnight. Thus, daily smokers or chewers are exposed to the effects of nicotine for 24 hours each day. Adolescents who chew tobacco are more likely than nonusers to eventually become cigarette smokers.

Nicotine, one of more than 4,000 chemicals found in the smoke from tobacco products such as cigarettes, cigars, and pipes, is the primary component in tobacco that acts on the brain. Most smokers use tobacco regularly because they are addicted to nicotine. Addiction is characterized by compulsive drug-seeking and use, even in the face of negative health consequences, and tobacco use certainly fits the description. It is well documented that most smokers identify tobacco as harmful and express a desire to reduce or stop using it, and nearly 35 million of them make a serious attempt to quit each year. Unfortunately, less than 7 percent of those who try to quit on their own achieve more than 1 year of abstinence; most relapse within a few days of attempting to quit.

Addiction to nicotine results in withdrawal symptoms when a person tries to stop smoking. For example, a study found that when chronic smokers were deprived of cigarettes for 24 hours, they had increased anger, hostility, and aggression, and loss of social cooperation. Persons suffering from withdrawal also take longer to regain emotional equilibrium following stress. During periods of abstinence and/or craving, smokers have shown impairment across a wide range of psychomotor and cognitive functions, such as language comprehension.

Women who smoke generally have earlier menopause. Pregnant women who smoke cigarettes run an increased risk of having stillborn or premature infants or infants with low birth weight. Children of women who smoked while pregnant have an increased risk for developing conduct disorders. National studies of mothers and daughters have also found that maternal smoking during pregnancy increased the probability that female children would smoke and would persist in smoking.

In addition to nicotine, cigarette smoke is primarily composed of a dozen gases (mainly carbon monoxide) and tar. The tar in a cigarette, which varies from about 15 mg for a regular cigarette to 7 mg in a low-tar cigarette, exposes the user to an increased risk of lung cancer, emphysema, and bronchial disorders.

How tobacco travels through the body. When tobacco is smoked, the most common form of use, the smoke enters the body through the mouth and nose, carrying with it a powerful drug called nicotine. From there it passes down the throat to the lungs. When the smoke is exhaled, tar and many harmful chemicals stay in the lungs. The nicotine passes from the lungs into the bloodstream. The heart pumps the nicotine-filled blood to the brain. Finally the nicotine in the blood is processed by the liver as the blood flows throughout the body. Tobacco is highly addictive.

Brain. Nicotine shrinks the arteries, cutting down the amount of blood that goes to the brain and harming its functions. In addition, nicotine indirectly causes a release of dopamine in the brain regions that control pleasure and motivation. This reaction is similar to that seen with other drugs of abuse such as cocaine and heroin and it is thought to underlie the pleasurable sensations experienced by many smokers. In contrast, nicotine can also exert a sedative effect, depending on the level of the smoker’s nervous system arousal and the dose of nicotine taken.

Mouth, throat. People who smoke cigarettes, cigars, and pipes may get cancer of the lips, mouth, or throat. Chewing tobacco and snuff can also lead to these kinds of cancer and to
gum disease. It is just as dangerous to chew tobacco as to smoke it.

**Heart, blood.** When nicotine narrows the body’s arteries, the heart has to work harder to get blood to all the body parts. For this reason, smoking is closely linked with heart disease, the leading cause of death. The use of smokeless tobacco (chewing tobacco and snuff) can lead to poor blood circulation and heart disease.

In addition, the blood of smokers contains less oxygen than the blood of nonsmokers. The reason: cigarette smoke contains many other chemicals instead of oxygen. Many of the more than 1,200 chemicals in cigarette smoke enter the bloodstream in just a few seconds. One of the most damaging chemicals is the poison, carbon monoxide.

**Effects on Behavior**

Nicotine makes people feel jittery and nervous. This is true even though some people say they smoke because “it calms me down” or “it gives me something to do with my hands.”

The body quickly develops a craving for nicotine, and people who want to stop using tobacco find it extremely difficult to do so. People can easily become “hooked.”

**DID YOU KNOW?**

- More deaths are related to cigarette smoking than to any other form of drug use. Every year approximately 440,000 people in the United States and 35,000 people in Canada die from smoking-related illnesses, mainly heart disease and lung cancer. Smoking cigarettes has often been described as “slow-motion suicide.”

- Secondary smoke comes from burning cigarettes, cigars, and pipes and from the exhalations of smokers. Secondary smoke contains many harmful substances and causes as many as 3,000 lung cancer deaths a year among nonsmokers. Smoking is now banned in most workplaces and public buildings in an attempt to reduce deaths and illnesses among nonsmokers.

- The number of smokers has dramatically decreased. In 1965, more than half of the adults in North America smoked cigarettes. Now three of every four adults do not smoke, and many of the few adults who do smoke are trying to quit.

- Tobacco smoke can lead to a variety of cancers in humans. Smoking has been linked to cancers of the lung, mouth, pharynx, larynx, esophagus, pancreas, cervix, kidney, and bladder.

- In spite of the claims of tobacco companies, there is no such thing as a safe cigarette. All cigarettes contain enough tar to be harmful, including so-called “low-tar” cigarettes.

- Chewing tobacco is even more addictive than smoking it. Besides causing bad breath and loose, stained teeth, chewing tobacco has been linked to cancers of the mouth, lips, and throat.
Consequences of Drug Use

Chemical Dependence/Addiction

What is chemical dependence?

Chemical dependence, or addiction, is an uncontrollable need to use a particular drug. People who are addicted to cigarettes, for example, sometimes keep smoking even after they learn they have lung cancer. People who are alcoholic keep drinking even after it costs them their jobs. Heroin addicts keep using that drug even though their bodies are covered with sores from the injections.

Chemical dependence is dangerous and harmful to:

- The person who is dependent
- The person's family, friends, and co-workers
- Society as a whole through car crashes, accidents in the workplace, and the high cost of medical care, crime, and other consequences of chemical dependence

Children of parents who are chemically dependent are at high risk for drug addiction. (See "How are the children of alcoholics affected?" page 39.)

Children from families that are constantly in crisis are also at risk for becoming dependent on drugs. In these families, and in families of alcoholics, children often learn not to talk about their feelings and not to trust others. These young people may turn to drugs as a means of escape from their feelings.

Difficulties with getting along with others and handling schoolwork can also put young people at risk for using drugs. "Hanging out" with drug-using friends can convince young people that everybody uses drugs, so they should, too.

Who can become an addict?

Anyone can become an addict, and all addicts begin by "experimenting" with drugs. The only way to be sure you'll never become an addict is never to use alcohol or other drugs.

Because young people's bodies and brains are not fully developed, children and teenagers can become addicted to alcohol and other drugs much more easily and quickly than adults.

Teens who use drugs tend to use them heavily and frequently, which increases their chances of becoming dependent. In addition, young people are likely to use more than one drug, multiplying their opportunities for addiction.

Why do young people start taking drugs?

Because of peer pressure

Some young people don't have the courage to say "No"—or they don't realize they can refuse drugs. They don't want to feel left out when their friends start using drugs. More and more, however, young people are saying "No"
to drugs. And they're choosing friends who are also drug-free.

**Because of curiosity**
Drugs are constantly in the news. As a result, young people ask themselves, “Why not? Maybe I won’t get hurt after all.” But it’s never a risk worth taking. The best way to grow up is drug-free.

**Because some drugs are legal for adults**
Hundreds of thousands of adults hurt themselves and their families every year by using legal drugs, mainly alcohol and tobacco. Many of these adults are “hooked” on legal drugs, and many have gone on to use illegal drugs.

**Why do dependent people keep taking more and more of the drug?**
Drug users often develop “tolerance” for the drug. That is, their bodies require larger and larger doses to get the same effect or even just to feel normal. Tolerance can lead an addict to use dangerous quantities of a drug that is harmful to start with.

**Why can’t the person see how harmful the drug is?**
“Denial” is when a dependent person won’t admit that he or she has a drug problem. The chemically dependent person may say “I don’t have a problem” or “I can handle drugs.” Dependent people may also blame others for their problems—including accidents resulting from drug use. They are lying to themselves, and they need help to understand their addiction.

**What happens when the dependent person stops taking drugs?**
When most addicts stop using a drug, they go through “withdrawal.” Depending on the drug, this can range from just feeling sick to extreme pain and convulsions. Suddenly giving up a drug is sometimes called “going cold turkey” because the addict may be in such pain and discomfort that he or she has goosebumps and cold skin.

**What are the signs of a drug problem?**
A person may have a drug problem or be addicted when he or she:

- Needs larger and larger doses of the drug to feel all right.
- Uses the drug all the time until it’s all gone; can’t say “No” to the drug or leave it alone.
- Uses the drug when alone.
- Prefers using the drug to other activities, such as spending time with family or friends.
- Does not follow through on commitments because of drug use.
Consequences of Drug Use

Chemical Dependence/Addiction

- Becomes sick when he or she stops using the drug.
- Lies about his or her drug use.

Here are some other changes that may take place when children or teenagers start to use drugs regularly:
- Dramatic changes in behavior
- Low grades or a loss of interest in school and positive activities
- Switching to drug-using friends
- Unwillingness to introduce friends to parents
- Secretiveness, lying
- Pro-drug attitudes

Many of these changes can be normal in late childhood and adolescence. None is a certain indicator of drug use, but any of them may be a cause for concern.

Can a person addicted to drugs stop using them?

In the past, addicted people were thought of as criminals; helping them was hopeless. But now addiction is often considered an illness. Even though there is no cure for this illness, it can be controlled when the chemically dependent person stops using drugs.

Steps to Recovery

It's extremely difficult for an addict to stop using drugs on his or her own. People need help dealing with their addiction, just as people need help dealing with a number of other illnesses. The addict needs the support of friends and family—and often must complete a drug treatment program to make a successful recovery. Recovery can take months or even years and is never really over.

1. Intervention
This is the first step to recovery. To plan an intervention, family, friends, and sometimes co-workers meet with a drug treatment professional to decide how to help the addict. Intervention often requires helping the addict admit he or she has a problem and forcing the person to see how drug use has harmed his or her life and the lives of loved ones.

2. Treatment
This step may last from a few weeks to a year or more. In many cases the addicted person may need to live at the treatment center in order to avoid all contact with drugs. Treatment often involves individual or group counseling. The user's family should also participate in treatment, since that can help the addicted person stay off drugs.

3. Aftercare
Treatment formally ends when the addict is ready to try living a drug-free life. Then aftercare begins. Because addicts frequently slip back into their drug habits, they need continued support to remain drug-free. Addicts in aftercare often attend support groups that meet every week—or even every day—to help each other stay drug-free.

A lasting recovery often requires a new lifestyle: giving up friends who use drugs, avoiding places and situations that trigger the desire to use them, and finding new ways to feel good. An addicted person must always think of himself or herself as "recovering." That is, he or she is never completely cured and should never again use drugs. Recovery continues for the rest of the person's life.

Unfortunately, treatment programs are not always effective. A majority of addicts turn back to drugs over and over.
Consequences of Drug Use

Chemical Dependence/Addiction

Two voluntary support organizations help people in many communities deal with alcohol and other drug problems. They are Alcoholics Anonymous and Narcotics Anonymous (for people addicted to other drugs). Their phone numbers are usually in the telephone book.

Suggestions for children dealing with alcohol or other drug use in the family

Learn more about drug use and chemical dependence. The more you know, the better you will understand the dependent person's behavior.

Realize that it's natural to feel angry, guilty, or ashamed. Lecturing, blaming, or threatening the dependent person does not help—and may make things worse. Remember that the person's drug use isn't your fault, even if the user says it is.

Don't try to fix the other person's problems. Don't attempt to cover up the problem by lying, acting as if nothing is wrong, or taking over the person's responsibilities. This may keep the dependent person from seeking help.

Talk about the problem with an adult or friend you trust. Go to Alateen meetings to talk with other teenagers dealing with similar problems.

Take good care of yourself. You cannot change the other person's behavior, but you can get involved in fun things that will improve your own life.

How are the children of alcoholics affected?

More than five percent of the population is addicted to alcohol. Even if the children of alcoholics never try alcohol, they suffer from a variety of problems because of their parents' drinking. These include:

• Being afraid of or not trusting adults
• Blaming themselves for the parent's drug problem
• Feeling that they must "fix" or take care of the parent's drug problem
• Constantly seeking adult approval
• Being frightened of anger or criticism
• Having very low self-esteem
• Being afraid to assert themselves
• Hiding problems that bother them
• Being afraid to admit having feelings such as anger or shame

Children of alcoholics are much more likely to have alcohol and other drug problems than children of parents who are not alcoholics.

Both Al-Anon and Alateen offer support groups for families where alcoholism is a problem. Their phone numbers are usually in the telephone book.
The Human and Economic Costs of Drug Use

Drug use and jobs

Workplace drug use costs employers billions of dollars a year due to lost productivity, increased medical claims, and accidents.

To reduce this cost, many companies now ask job applicants to undergo drug testing. The companies usually reject people whose tests indicate any drug use. Some companies also periodically test employees, especially those suspected of using drugs. Evidence of drug use may mean that the employee will receive counseling—or be fired.

Tests use urine or hair samples, or both. Such tests can detect the presence of alcohol, cocaine, depressants, stimulants, and a number of other drugs, but they most often find marijuana.

Partly because of drug testing, the use of illegal drugs by workers has been dramatically reduced.

Drug use and military service

The armed services are generally not interested in applicants who have even one conviction for driving under the influence (DUI) of alcohol or any other drug.

Applicants are tested for drug use and asked to sign sworn statements that they have not used illegal drugs. Anyone caught lying is immediately discharged. The military also conducts random tests of its members.

Drug use and AIDS

People who inject themselves with cocaine, amphetamines, steroids, or other illegal drugs sometimes use needles that have been used by someone else. They run a high risk of becoming infected with Acquired Immunodeficiency Syndrome, or AIDS. The virus is injected into their bloodstream, along with the drug. Nearly one of every three people with AIDS was infected while injecting drugs.

People who are using any drug, not just the injected ones, tend to have unprotected sex. This also puts them at high risk for contracting AIDS. Some addicts trade sex for money so they can buy more drugs. Along with the money, they can get AIDS.

Drug use and crime

Drug use can result in violent, aggressive behavior that destroys property or hurts or kills others. Also, many users steal to get money for more drugs. In one study of crack users, 70 percent of the women and 85 percent of the men were involved in street crime to support themselves. Almost none of them had held a legal job in the previous 90 days.

Many criminals and even their victims are under the influence of alcohol or other drugs at the time of the crime. In one study, nearly one of every three convicted murderers reported being high on alcohol or marijuana at the time he or she committed the crime. In another study, cocaine users were found to be 10 to 50 times more likely to be victims of homicide than persons who remained drug-free.
Consequences of Drug Use
The Human and Economic Costs of Drug Use

Police officers spend much of their time and resources fighting drug use. Federal crime agencies use up much of their violent crime budgets on drug investigations.

Drug use and children

The harmful chemicals in drugs pass through a pregnant woman's bloodstream directly to her unborn baby. The drugs mentioned below, plus others, can interfere with the baby's development and even cause its death.

Babies and children of smokers. The chemicals in tobacco speed up the unborn baby's heartbeat, reduce its oxygen supply, slow its growth, and cause other problems.

Pregnant women who smoke have higher rates of premature birth, miscarriage, and stillbirth than nonsmokers. Their babies usually weigh less than babies born to nonsmokers. Babies of smokers are also more likely to have birth defects and delayed mental development.

If a woman stops smoking when she becomes pregnant, her risk of having a baby who has low birth weight or is stillborn drops to that of a nonsmoking mother.

Children who live with smokers are likely to have more colds, earaches, and bronchitis than children of nonsmokers.

Babies of drinkers. When a pregnant woman drinks, her baby ends up with nearly the same level of alcohol in its bloodstream as the mother.

A mother who drinks may have a baby with Fetal Alcohol Syndrome (FAS). The effects of this syndrome include low birth weight, delayed growth, poorly formed facial features, heart defects, hyperactivity, and mental retardation. FAS children can have so many problems that they require special schooling.

FAS is the third leading cause of birth defects—and the only preventable cause of the top three. The amount of alcohol that causes FAS is still unknown, so pregnant women or women who think they might be pregnant should not drink at all.

Babies of crack and cocaine users. Cocaine in a mother's bloodstream keeps nutrients and oxygen from reaching the baby. This slows the baby's growth and leads to low birth weight. It can also cause a deformed heart, digestive system, and lungs. Other common problems include brain damage and hyperactivity. Babies can be born addicted to crack or cocaine. They are then forced to go through withdrawal. This makes them irritable and difficult to care for, especially for parents who are still using drugs themselves.

Babies of marijuana users. Babies born to women who regularly use marijuana can have low birth weights and problems related to their central nervous systems.

Babies of inhalant users. If a pregnant woman uses inhalants, her baby may be born with Fetal Solvent Syndrome. A baby with this syndrome can have a small head, deep-set eyes, distorted nose and ears, and stubby fingers.
Consequences of Drug Use

Risks of Drug Use by Children and Youth

Risk of Addiction

Because their bodies are still developing, young people who drink alcohol are at much larger risk for alcoholism than adults.

Risk to Physical Growth

The human body grows very fast during adolescence. The hypothalamus gland (hy-poh-THAL-uh-mus) in the brain controls this growth. Using alcohol and other drugs during adolescence can create a chemical (hormonal) imbalance in this gland that slows down the development of the entire body, especially the muscles, body mass, and liver.

Risk to Emotional Growth

In adolescence, young people learn to handle relationships and develop a sense of who they are. The use of alcohol and other drugs interferes with this. Young people who use drugs may reach adulthood unprepared to solve problems and cope with the challenges of life.

Risk of Death

The top three causes of death for 16- to 24-year-olds are traffic crashes, homicides, and suicides. Alcohol plays a major role in all three causes.

For example, statistically, four of every ten fatal car crashes involve someone who was drinking alcohol. Those who commit murder and those who are murdered are both more likely to have been using drugs than those who have not. And three of every four young people who attempt suicide have been drinking or using drugs.

Legal Risk

Laws are made to protect us, and the laws convey a clear message about drug use and youth: Most mind-altering drugs are illegal for minors. Young people who buy drugs, even alcohol or tobacco that are legal for adults, are breaking laws that are meant to protect their health and well-being. Young people are permitted to buy over-the-counter drugs, but even these can be dangerous if misused.
<table>
<thead>
<tr>
<th>Type/Name of Drug</th>
<th>How Taken</th>
<th>Drug Category</th>
<th>Health Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Drunk</td>
<td>Depressant</td>
<td>Accidents, alcoholism, cirrhosis of the liver, brain damage</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>Swallowed, injected</td>
<td>Stimulant</td>
<td>Heart problems, strokes, malnutrition, brain damage, depression, psychosis when &quot;crashing&quot;</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Swallowed</td>
<td>Depressant</td>
<td>Addiction, death or coma when used with other drugs</td>
</tr>
<tr>
<td>Cocaine/crack</td>
<td>Sniffed, smoked, injected</td>
<td>Stimulant</td>
<td>Very rapid addiction, psychosis, damage to nose and throat, heart failure, depression from &quot;crashing&quot;</td>
</tr>
<tr>
<td>Heroin</td>
<td>Injected</td>
<td>Narcotic</td>
<td>Addiction, withdrawal symptoms</td>
</tr>
<tr>
<td>Inhalants</td>
<td>Sniffed</td>
<td>Stimulant</td>
<td>Damage to brain and other organs, death, blindness</td>
</tr>
<tr>
<td>LSD</td>
<td>Swallowed</td>
<td>Hallucinogen</td>
<td>Accidents, paranoia, psychosis, brain damage</td>
</tr>
<tr>
<td>Marijuana/Cannabis</td>
<td>Smoked, eaten</td>
<td>Stimulant, depressant, hallucinogen</td>
<td>Stays in the body for weeks; damages brain, reproductive system; loss of memory and motivation; lung diseases; accidents; paranoia</td>
</tr>
<tr>
<td>Type/Name of Drug</td>
<td>How Taken</td>
<td>Drug Category</td>
<td>Health Hazards</td>
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<tr>
<td>MDMA/Ecstasy and MDA</td>
<td>Swallowed</td>
<td>Hallucinogen, stimulant</td>
<td>Faintness, extreme dehydration, depression, paranoia, brain damage.</td>
</tr>
<tr>
<td>Methamphetamine sniffed, orally, injected, smoked</td>
<td>Stimulant</td>
<td></td>
<td>Methamphetamine increases the release of very high levels of the neurotransmitter dopamine, which stimulates brain cells, enhancing mood and body movement.</td>
</tr>
<tr>
<td>Opium</td>
<td>Smoked</td>
<td>Narcotic</td>
<td>Addiction, withdrawal symptoms</td>
</tr>
<tr>
<td>PCP</td>
<td>Smoked, injected</td>
<td>Hallucinogen, stimulant</td>
<td>Accidents, paranoia, psychosis, brain damage</td>
</tr>
<tr>
<td>Steroids</td>
<td>Swallowed, injected</td>
<td>Synthetic hormone</td>
<td>Withdrawal symptoms, depression, psychosis, Damage to hormone and reproductive systems.</td>
</tr>
<tr>
<td>Tobacco</td>
<td>Smoked, chewed, sniffed</td>
<td>Stimulant</td>
<td>Lung cancer, emphysema, cancer of the mouth and throat, heart disease</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>Swallowed</td>
<td>Depressant</td>
<td>Addiction, death or coma when used with other drugs</td>
</tr>
</tbody>
</table>
**Glossary**

**Abstinence** *(to abstain)*—refusal to do something, such as using drugs.

**Acids**—very strong chemicals in the digestive system that break food into small parts that the body can use.

**Addiction**—an uncontrollable need for a drug; chemical dependence.

**Adolescence**—approximately from ages 10 to 20, when the body goes through its most important growth since infancy.

**AIDS (Acquired Immunodeficiency Syndrome)**—a fatal disease that can be spread by using a hypodermic needle infected by someone with AIDS; also passed through sexual contact.

**Alcoholism**—addiction to alcohol.

**Anabolic steroids**—chemicals that cause the body to develop temporary strength and speed.

**Analgesics**—painkillers.

**Caffeine**—the stimulant drug in coffee, tea, soda, chocolate, and other substances.

**Cannabinoids**—chemicals in marijuana that damage the body's cells.

**Central nervous system**—the brain, spinal cord, and nerve system throughout the body; it sends and receives "messages" telling the body how to function.

**Chemical dependence**—an uncontrollable need for a drug (addiction).

**Cirrhosis of the liver**—a disease that can be caused by drinking alcohol.

**Convulsions**—seizures; sudden unconsciousness and muscle contractions caused by electrical stimulation in the brain.

**Delusion**—something that isn't true; someone having delusions is confused about what is true and what isn't.

**Denial**—the unwillingness or inability to admit having a drug problem.

**Depressant**—a drug that slows down the brain, central nervous system, and other body functions.

**Digestive system**—the organs that digest food and liquids: stomach, intestines, liver, kidneys, pancreas.

**Drug**—any chemical that changes the mind or body.

**Hallucinations**—seeing or hearing things that aren't there.

**Hormones**—chemicals that control some body processes, including sexual development and reproduction.

**Hypodermic needle (syringe)**—a long, thin needle with a tube and plunger used to inject drugs.

**Immune system**—white blood cells and other substances in the blood that protect the body from certain infections or diseases.

**Malnutrition**—a condition resulting from eating too little food or the wrong kinds.

**Methamphetamine**—a very addictive stimulant drug with potent, long lasting, and harmful effects to the central nervous system.

**Misuse**—not using something correctly, such as not following directions on medicines.

**Nausea**—feeling sick to your stomach.
**Glossary**

**Nutrients**—vitamins, minerals, protein, and other substances the body needs to stay healthy.

**Overdose**—taking too much of any drug.

**Paranoia**—the feeling that people are “out to get you.”

**Perception**—seeing, hearing, smelling, tasting, and touching.

**Psychoactive drug**—drug that changes the way the brain works.

**Recovery**—the period following treatment for addiction; it lasts for the rest of the person’s life.

**Reproductive system**—the body organs involved in creating new human life.

**Respiratory system**—the organs that enable the body to breathe: trachea, bronchii, lungs.

**Stimulant**—a drug that speeds up the body functions.

**THC**—delta-9-tetrahydrocannabinol, the most harmful mind-altering chemical in marijuana.

**Tolerance**—needing more and more of a drug to achieve the same effect.

**Treatment**—the process of helping an addict to stop using drugs.

**Vaccine**—a drug that protects against infection or disease.

**Vapor**—a gas.

**Withdrawal**—illness, pain, and other unpleasant feelings that happen when a person stops using an addictive drug.