

Resource Information for Teachers on Alcohol, Tobacco and Other Drugs

Description of the tool:

This tool provides resource information and fact sheets for teachers on six commonly used drugs:

- alcohol
- tobacco
- marijuana
- cocaine and crack
- inhalants and
- steroids

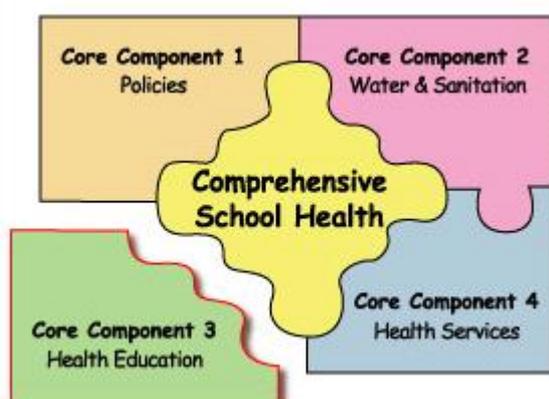
It describes the drugs and gives details of the symptoms and the effects that consumption of these drugs has on the body. Teachers could use this information when teaching primary and secondary classes.

The information in this tool was adapted by UNESCO in collaboration with Health and Human Development Programs at Education Development Center, Inc. from the following publication:

Education Development Center, Inc./Rocky Mountain Center for Health Promotion 1996. *Choosing Not To Use: Alcohol, Tobacco, and Other Drugs*. EDC. Newton, Mass.

Description of the document

This publication is a part of the *Teenage Health Teaching Modules*, a comprehensive health education curriculum for middle and high school students. In addition to providing essential information about the effects on health of alcohol, tobacco, and other drugs, this module also addresses the social dimensions of drug use and prevention. The sessions provide students with health information, resistance strategies, and support for making their schools and communities drug free.



This information supports Core Component #3 of the FRESH framework for effective school health: **skills-based health education**. It will have a greater impact if it is reinforced by activities in the other three components of the framework.

Resource Information for Teachers on Alcohol, Tobacco and Other Drugs¹

I. Fact Sheet on Alcohol

Ethyl alcohol is the active drug present in alcoholic beverages. It is a depressant. It is created through a natural chemical process called fermentation, in which yeast cells convert the natural sugar in certain fruits and grains into carbon dioxide and alcohol. In some countries it is illegal for young people below a certain age to purchase alcohol.

Ethyl alcohol anesthetizes the brain. First it slows down and interferes with the higher brain centres controlling judgment and inhibition. As the concentration of alcohol in the central nervous system increases, paralysis of the lower brain centres occurs causing poor coordination, confusion, disorientation, stupor, loss of control over critical body functions, coma, or death. If an individual's blood alcohol concentration is greater than 0.60 percent, the brain functioning becomes so depressed that breathing and heartbeat stop, and death results.

Alcohol increases blood pressure and heart rate, decreases blood supply to the heart, and dilates blood vessels in the limbs, causing body heat to escape and creating a feeling of warmth. Small doses of alcohol can lower inhibitions and cause mild feelings of well-being. Large doses progressively depress mood and energy.

Once alcohol is in the stomach, it begins to be absorbed. Unlike other foods, alcohol requires no digestion. It passes through the walls of the gastrointestinal tract and is picked up by small blood vessels. Alcohol absorption is influenced by the concentration of alcohol, the amount of alcohol, the rate of drinking, the amount of food in the stomach, body weight, body chemistry and emotions, and history of alcohol consumption.

Alcohol is toxic to the body. It can cause nausea, headaches, vomiting, and anxiety. Long-term alcohol abuse is life shortening and life threatening. People who chronically abuse alcohol get sick more often than people who don't and are at much greater risk for developing digestive system disorders, liver diseases, malnutrition, nervous system diseases, hormonal disorders (including impotence and infertility), mental disorders (especially depression), heart disease, muscle wasting, and cancer.

Women who drink even small amounts of alcohol during pregnancy risk harming the foetus. Alcohol abuse during pregnancy can result in a pattern of birth defects called Foetal Alcohol Syndrome. Symptoms include mental and physical growth retardation, emotional disorders, and physical deformities. Less severe or less obvious consequences of maternal alcohol use during pregnancy are often referred to as Foetal Alcohol Effects.

These consequences may include learning difficulties and socially inappropriate behaviour. Alcohol abuse plays a major role in many societal problems, including birth defects, high

medical costs, traffic fatalities, and violence. Alcoholism is a form of drug dependence. Symptoms of alcoholism include hiding or lying about drinking; guilty feelings about drinking; drinking because of anxiety, fatigue, or depression; memory black-out; and increasing tolerance for alcohol. Alcoholism can involve loss of control over drinking, withdrawal symptoms, physical problems, body shakes, and drinking to avoid a hangover.

Alcohol withdrawal symptoms include restlessness, body shakes, insomnia, depression, anxiety, loss of appetite, confusion, hallucinations, and convulsions (the "DTs," or delirium tremens).

II. Fact Sheet on Tobacco

Nicotine is a drug found in the leaves of the tobacco plant. It is consumed by smoking cigarettes, pipes, or cigars or by using smokeless tobacco. Nicotine stimulates the central nervous system and increases heart rate and blood pressure, lowers skin temperature, and makes the user breathe faster. This can cause fatigue, lowered physical endurance, shortness of breath, heart palpitations, and stress on the heart.

Because nicotine can act as either a sedative or stimulant, its emotional effects include relaxation as well as irritability and nervousness. Nicotine is a highly addictive drug, both physically and psychologically. The long-term consequences of tobacco use include lung and respiratory damage, muscle wasting, peptic ulcer disease, cancer, and cardiovascular disease.

Non-smokers can be exposed to the harmful effects of tobacco by inhaling side-stream smoke from the lighted tips of cigarettes, cigars, and pipes. Side-stream smoke (also known as passive, second-hand, or environmental smoke) has immediate and long-term effects on those who breathe it.

Non-smokers often suffer from eye irritation, headaches, nose and throat discomfort, and allergic reactions when exposed to side-stream smoke. Side-stream smoke increases the risk of lung cancer among non-smokers by as much as 34 percent. Non-smokers who live with smokers are also more likely than other people to develop heart disease and breast, cervical, and nasal/sinus cancer. For example, an estimated 53,000 Americans die annually from the effects of side-stream smoke, making it the third leading cause of death after active tobacco and alcohol use.

III. Fact Sheet on Marijuana

Marijuana is an illegal drug in many countries. Laws regarding the sale, possession, transportation, and smuggling of marijuana vary from country to country. Marijuana and hashish are made from the hemp plant, *Cannabis sativa*. When dried, the plant resembles oregano and comes in green, brown, gold, and red. The mind-altering chemical ingredient in marijuana is Tetrahydrocannabinol (THC).

The chemical potency of marijuana today is 20 to 25 times greater than it was in the 1960s. Marijuana is usually smoked from a pipe or cigarette. It can also be eaten. Chemicals ingested from marijuana use leave the body very slowly. They can remain in cells for as long as 45 days. Harmful by-products are stored in the brain, lungs, testes, ovaries, and body fat.

Low doses of marijuana can induce euphoria — a dream-like state — as well as confusion, anxiety, panic, hallucinations, and paranoia. Marijuana increases heart rate and blood pressure, which can be dangerous for people with heart problems or susceptibility to strokes. It also diminishes coordination, reaction time, short-term memory, sense of time, the ability to learn, and the ability to talk.

Physical dependence on marijuana can develop rapidly. Withdrawal symptoms include nausea, vomiting, irritability, sweating, sleeping problems, and weight loss. Marijuana users risk lung damage, diseases such as bronchitis and lung cancer, higher heart rate and blood pressure, lower immunity to disease, and lower reproductive functioning.

Benzopyrene, the cancer-causing chemical found in cigarette smoke, is much more abundant in marijuana smoke than in cigarette smoke. Smoking three to five marijuana cigarettes a week can have the same effect on the lungs as smoking 16 to 18 tobacco cigarettes a day, seven days a week.

Marijuana users can lose interest in long-term goals and activities. Users may become increasingly unmotivated or dull and may have difficulty concentrating, remembering things, planning, or performing in school or work. These problems can disappear soon after stopping marijuana use completely.

People who use marijuana often have bloodshot eyes, decreased coordination and reaction time, difficulty communicating clearly, a confused appearance, and/or a skewed sense of time.

IV. Fact Sheet on Cocaine and Crack

Cocaine is illegal. Selling, transporting, possessing, and smuggling cocaine are all serious crimes in many countries. Cocaine is commonly called coke, snow, flake, crack, rock, powder, white, blow, nose candy, lady, or toot. Cocaine is a white powder or rock made of leaves from the coca plant. Cocaine is inhaled through the nose, injected, or smoked.

Inhaling cocaine stimulates the body's central nervous system and increases heart rate, blood pressure, and body temperature. The initial effects are brief and include euphoria and a sense of increased strength, energy, and alertness. Anxiety, irritability, and hostile or aggressive behaviour are also effects of cocaine. A cocaine high is often followed by feelings of depression, tiredness or headache.

Cocaine is extremely addictive. Every time the drug is taken, it creates a strong desire to take more. Each time a person uses cocaine, he or she needs more of the drug to create the same effect. Chronic use can lead to listlessness and severe reactions, such as seizures or psychotic behaviour.

Ingestion of cocaine can cause drug dependency, lung damage, psychosis, blood clots, burns, and toxic shock syndrome – which can lead to tremors, panic, chest pain, vomiting, and, without medical help, to convulsions, high fever, and death from heart attack or stroke. The very first dose of cocaine can cause stroke, heart attack, or sudden death.

People under the influence of cocaine may appear overly active or flushed, and may have dilated pupils. Users may show signs of behaviour change, such as decreased job or school performance, and/or physical deterioration, including weight loss.

Crack is a far stronger, more dangerous form of cocaine. It is one of the most addictive substances known, even more addictive than heroin. Crack is made by converting cocaine powder into light-brown shavings or pellets. Smoking crack produces a short, intense feeling of euphoria, which several minutes later, leads to a severe, crisis-like withdrawal, with extreme depression, paranoia, and an overwhelming desire for more crack. One dose of crack has been known to cause sudden death.

Crack is cheaper than cocaine, making it accessible to young or low-income buyers. Once addicted, crack users often turn to stealing, prostitution, or drug dealing to support their addiction. Prolonged use can lead to violent behaviour and psychotic states.

Freebasing (injecting or smoking pure cocaine) causes an intense rush that is similar to crack's effects. This high is rapidly followed by a depressive crash. Injecting cocaine also brings risk of HIV infection.

Many babies born to mothers who abused cocaine or crack during pregnancy suffer immediate and long-term effects of the drug. These babies begin life in an agonized state of withdrawal and are often developmentally delayed or otherwise impaired.

V. Fact Sheet on Inhalants

Inhalants are chemicals in gaseous form that, when breathed in, decrease the flow of oxygen to the brain. Inhalant abuse is the intentional misuse of these chemicals to alter the mind. It most commonly occurs among children of upper elementary and middle school ages. Older adolescents are less likely to experiment with inhalants, although some teenagers who began abusing inhalants at a younger age continue for years. More boys than girls report using inhalants, but use among girls seems to be increasing.

Inhalants may be more popular than other drugs among children because they are inexpensive and accessible. More than 1,400 inhalant products have the potential to be abused and many are found in the home. These include glues and adhesives; cleaning products; paints, lacquers, and paint thinners; gasoline and other fuels; hair sprays; marking pens; and correction fluids. Young children, especially, may equate legal availability with safety.

Although some youngsters experiment with inhalants only, regular users often use other drugs, such as alcohol or marijuana. Inhalant abuse may occur at about the same age or at a slightly younger age than use of these other drugs.

Inhalants can be breathed directly from containers or poured or sprayed on cloths or into plastic bags before being inhaled. They may be breathed in through the nose (“sniffing”) or through the mouth (“huffing”).

The chemicals in inhalants pose a danger to both experimenters and chronic abusers. Death can occur almost immediately from irregular cardiac activity or suffocation.

Injuries and suicides are also associated with inhalant intoxication. Repeated abuse of these products can lead to permanent damage to the brain, kidneys, liver, and lungs. Signs of chronic inhalant abuse include:

- rashes or sores around the mouth or nose
- red or runny nose or frequent nosebleeds
- weight loss, often accompanied by a decrease in appetite
- restlessness, anxiety, or excitable behaviours
- moodiness or irritability
- inability to concentrate or confusion
- headaches
- persistent cough
- hand tremors

It is important for teachers to be knowledgeable about inhalants, but it may not be necessary to share detailed information with students. Most students know that young people may sniff substances such as glue, but many are not aware of the euphoric effects some chemicals produce. It is recommended that rather than giving students many examples of inhalants,

you tell them that all chemical products can be harmful if misused. Students need to know that death can occur with first-time experimentation and that long-term abuse can do permanent damage to the mind and body.

In the classroom, it is recommended that non-toxic correction fluid, markers, and art supplies be used whenever possible. When toxic substances are used, it is important that they be used safely. It is normal for students, when using markers, glue, or other inhalants, to joke about sniffing these products. Although this behaviour should not be encouraged, teachers and parents need not overreact to such comments.

VI. Fact Sheet on Steroids

Anabolic-androgenic steroids -- commonly known as steroids -- are synthetic substances made from the male hormone testosterone. Steroid use has been officially condemned by most national and international sports organizations because of the overwhelming evidence that steroids can cause dangerous side effects and do not increase long-term athletic performance.

Sixty to eighty percent of steroids used are obtained through the black market. Users are often unaware of the drugs' harmful side effects. Steroids are sometimes used in the treatment of certain medical disorders, including deficient hormonal functioning of the testes, anaemia, and growth retardation in children, breast cancer, osteoporosis, and hereditary fluid retention. Their use is controversial, and some patients can be affected by their harmful side effects.

In females, steroid use causes acne and masculinization, which can include growth of facial hair, deepening of the voice, menstrual problems, baldness, excessive body hair growth, and prominent musculature. In males, steroid use can cause balding, acne, decreased sperm production, shrinking testes, and enlargement of breast tissue. Violent, combative moodiness, depression, delusions, paranoia, and suicidal feelings are also associated with steroid use.

Steroid users are at increased risk for developing water retention, abnormal skeletal muscle changes, liver dysfunction, liver cancer, and premature heart diseases. Long-term use may cause irreversible organ damage and death.

Steroid use is particularly harmful to young people who are still maturing physically. These drugs can stunt growth and disrupt normal sexual development. Use of steroids during pregnancy can cause severe damage to the developing foetus, particularly to female foetuses.

¹ Education Development Center, Inc./ Rocky Mountain Center for Health Promotion (1996). *Choosing Not To Use: Alcohol, Tobacco, and Other Drugs*. EDC. Newton, Mass. <http://main.edc.org/>