The Effects of Tobacco, Alcohol & Other Drugs on Your Body

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Since this book is intended for translation into other languages, “substance use disorder” is simplified to the more widely-known term “drug addiction.” When translating, please use the most accepted terms for your language.

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INTRODUCTION

What are drugs?

A drug is any chemical taken into your body that changes your body or brain and the way they function. Drugs are powerful chemicals. All drugs can affect the way your brain works, how you feel and behave, and your senses. Drugs often fall under the categories of pharmaceutical drugs (medicines) and recreational drugs that people use for pleasure.

Some drugs come from plants and other drugs are made "synthetically" in a laboratory to imitate a natural product. The effects are different for each drug and each person who uses them. Some drugs are legal and some are illegal. Even legal drugs, when they are misused or abused, can be unpredictable and dangerous.

Drugs can be legal or illegal.

Medicines are legal drugs that can help us get well when we're sick or injured. They are prescribed by a doctor or bought over-the-counter at a pharmacy. Antibiotics and pain relievers are examples of medicines.

Recreational drugs are used primarily for pleasure. They can be both legal and illegal. Caffeine is an example of a recreational drug that is legal for everyone. Caffeine is in soft drinks, tea, and coffee. Tobacco contains a drug called nicotine. Beer, wine, and liquor contain alcohol. Tobacco and alcohol are drugs that are legal for adults of a certain age in most countries. Adults can use these products legally if they choose to. However, both alcohol and nicotine in tobacco products are powerful drugs, and even adults are expected to follow rules about when they can be used and how they use them.

Tobacco and alcohol are the most widely used and abused legal drugs in the world. Marijuana is a drug that has recently become legal for recreational use in a few countries, but it is still considered the most widely used illegal drug world-wide. Having it declared legal for adults in a few places doesn't mean it is safe, especially since the marijuana produced today is much stronger than in the past. Scientists are still researching the effects that this new, stronger marijuana has on our bodies and brains.

Some drugs are so dangerous that they are illegal for everyone. Heroin, methamphetamines, and cocaine are examples of illegal drugs. Using a legal prescription drug recreationally is also considered illegal. Drug abuse can happen with legal drugs, like alcohol or prescription medications, as well as illegal drugs.

Effects on children and teens

Whether a drug is legal for adults or not, even drugs like tobacco, alcohol, and marijuana are not safe for children or teens because their brains are still developing. Using "legal for adults" drugs can do permanent damage to a child or teen's developing brain.

What is drug abuse?

Drug abuse is when a person misuses a drug for non-medical purposes, for pleasurable affects to get "high," or because they can't stop taking the drug once they started using it.

A high is the feeling that some people want to get when they take drugs. Some highs make a person feel euphoric-- excessively happy, excited, or exhilarated. Some make them feel powerful or more energetic. Some highs cause people to see and hear things that aren't really there (hallucinations).

Advertisements, television, and movies sometimes make using drugs appear attractive. Some of your friends or people you know might smoke cigarettes, drink alcohol, or use illegal drugs and encourage you to use them. You may be curious and it may look fun. But, in fact, these things are very dangerous for your brain and body.

Before you try them, or before you use them again if you have already begun…

Take time right now to stop and think!

Some of the physical effects of drugs might sound tempting, but they do not last long. Many people get depressed and lonely after using alcohol and other drugs and start feeling sick. Experimenting with drugs, even just once, can change the course of your life forever—especially if you overdose or become addicted. Some drugs can even kill you if they are misused. When you misuse or abuse drugs, you are in danger of drug addiction. The younger people are when they begin experimenting with tobacco, alcohol, and other drugs, the more likely they are to become addicted.

What is drug addiction (substance use disorder)?

Drug addiction is a brain disorder. To be addicted means that you get a very strong urge to do something, and it is very hard to stop doing it even if you want to. Some drugs make you want to take more and more. People who use drugs can become dependent on them—that means that their bodies become so used to having the drug that they can't function well without it.

Once you start taking them, addictive drugs are difficult or nearly impossible to stop using, even if bad things start happening to you—like having problems with your family and friends, having problems at work, or getting bad grades in school. Anyone who uses drugs can become addicted. It doesn't matter if you are rich or poor, where you live, or how smart you are. There is no way to predict exactly who will become addicted because it differs from person to person.

Research does show, however, that there are factors about a person's community, friends, family, and personality that can make it more or less likely that they might become addicted. These are called risk and protective factors for drug addiction. There also may be a genetic factor involved. The National Institute of Drug Abuse says that as much as half of a person's risk of becoming addicted to nicotine, alcohol, or other drugs depends on his or her genetic makeup. This makes it especially important for people with a family history of addiction to be careful to **never** abuse tobacco, alcohol, or other drugs.

For more information about risk and protective factors, see the section "Risk and Protective Factors for Drug Use at the end of this book."

What is drug withdrawal?

People with an addiction have a physical or psychological need to take the drug or they will suffer intense, unpleasant withdrawal symptoms when they don't have it. Nausea, vomiting, diarrhea, anxiety, and insomnia are examples of withdrawal symptoms. These unpleasant symptoms, along with strong urges and cravings, make it very hard to stop taking the drug. Sometimes people who are addicted to drugs want to quit. If they stop taking drugs all of a sudden, they can go into withdrawal.

Why do people use drugs?

There are many reasons why people might use drugs.

- **They feel curious, bored, or pressured from their friends.** Often, young people might begin experimenting with drugs because their friends are using them. They might want to fit in, so they try the drugs even if they don't really want to. Teens are particularly at risk for feeling peer pressure to use drugs.
- **It makes them feel good.** Some people use drugs because they like the way it feels when they first begin using. Some drugs can make people feel intense pleasure and excitement. Others make them feel more powerful, confident, or energetic. There are also drugs that make people feel calm and relaxed. Some people are given prescription drugs from their doctor for a medical condition—but they like the effect it has on them—so they continue using the drug even when their health gets better.
- **It makes them feel better or "normal."** Some people who suffer from anxiety, stress, or depression might start using drugs to help them feel less anxious or sad. They might think the drugs will help them to relax and feel calm. Someone who has experienced trauma might want something to "take the edge off" or help them forget about their problems. They might take medication or other drugs to help them sleep, but then think that they will only be able to sleep if they take the drug.
- **They think drugs will help them perform better in school, work, or sports.**

If drugs can make you feel good, why not use them?

Every chemical or drug that can make you feel better or different can also harm or even kill you. Because drugs can make you feel better or different right away, too many people are tempted to use them—even when they know they are dangerous. Because of these dangers and the harm they can cause, many countries around the world work together to try to strictly control the drugs that are produced. Some drugs are not okay for anyone to use—ever!

Taking a drug might temporarily make someone who is sad feel better or forget about their problems. However, the brief feelings of relief only last until the drug wears off. **Drugs don't solve problems!** In fact, using drugs often causes other problems on top of the problems the person had in the first place—especially if they become addicted.

When people use drugs, it is hard for them to think clearly and make good decisions. They sometimes do dangerous, risky things that could hurt themselves or other people. They are often unable to take care

of themselves well or defend themselves if someone is trying to hurt them. *(For more information about this, see the section on "Date Rape Drugs.")*

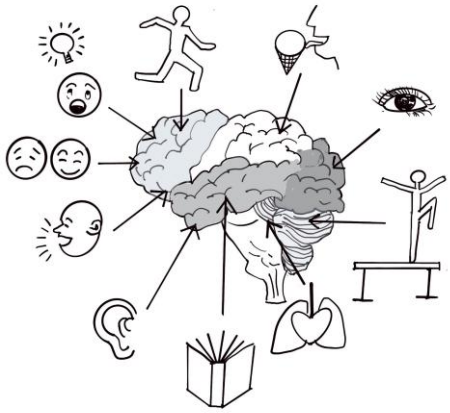
Eventually, someone who uses drugs is less able to do well in school, sports, and other activities.

Drugs can change your brain

Your brain controls everything you think, say, and do. Your brain helps you to see, hear, smell, taste, and feel. Your brain is you!

If you abuse drugs, you will change your brain. This will change your life—but not for the better. Abusing drugs can change your life in a bad way because they disrupt the way your brain works to think and control your body.

Your brain controls your body by sending messages.



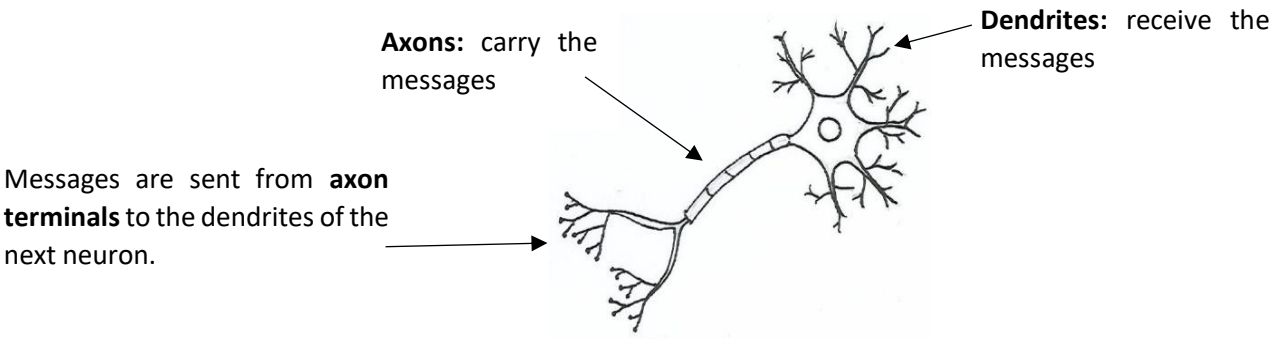
How does the brain send messages?

Your body has special cells called **neurons** that carry messages back and forth between your brain and other parts of your body.

There are about 86 billion neurons in the human brain! Networks of neurons send signals back and forth to each other, to different parts of the brain, spinal cord, and nerves in the rest of the body through electrical and chemical signals.

Neurotransmitters are chemical messengers that carry the messages from one neuron to the next. A neuron looks similar to a tree— with branches, a trunk, and roots. The chemical messages are sent from the roots of one neuron to the branches of another. The **axon** carries the signals to the roots. The branches, called **dendrites**, are covered with receptors that receive the chemical messages.

Brain Neuron

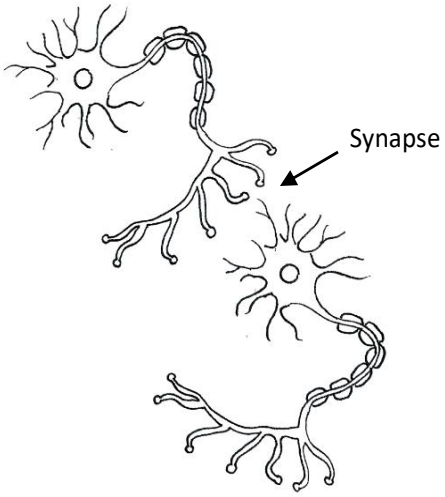


The neurons send messages to each other by releasing the neurotransmitter chemicals into the gaps between cells.

These gaps are called **synapses**. Information passes from one neuron to the next across the synapse.

To send a message, a neuron releases a neurotransmitter into the synapse between it and the next cell. The message then attaches to the dendrite receptors on the receiving neuron.

This is how neurons communicate to make your brain and body do things. For example, when you want to walk or run, your brain uses long chains of neurons to send a message to your feet to move.



How do drugs change the way your brain works?

Drugs can change the way that brain neurons talk to each other. These changes cause neurons to make you think and act in ways that you normally wouldn't.

Here are some parts of the brain that can be affected by the misuse of drugs

Your **Limbic System** controls your behavioral and emotional responses—Your emotions, reactions to stress, feelings of pleasure, reward, and pain are affected when you use drugs. Your brain is taught to crave the drug instead of finding pleasure in normal, healthy activities. The limbic system includes the hippocampus and amygdala.

Cerebral Cortex (includes the **prefrontal cortex**)—
You can't think clearly, make good decisions, or control your actions while using drugs.

Amygdala—People feel anxiety, irritability, and unease when they can't get the drug. This motivates them to seek more of the drug.

Hippocampus—Drugs make it difficult to remember what you learn and your brain can't store your memories properly.

Cerebellum—Movement, balance, and posture are interrupted by drugs. This makes it hard to walk.

The **brain stem** controls heart rate, breathing, and sleeping. Overdoses can cause slowed breathing and death.

These changes in the brain affect most, if not all, aspects of a person's life and relationships. They often miss work or school, endanger their family physically and/or financially, suffer health problems, and get into legal trouble. But despite these problems, they are unable to change their habits to improve their situation. This is why many people with an addiction become jobless, homeless, or separated from their families.

What other parts of the body are affected by drugs?

Drug use can also cause other medical problems too. Some drugs can cause heart disease, cancer, lung problems, and mental illnesses, like depression. A few drugs can even kill cells in your brain and body! This makes it hard to walk and talk and understand what's happening around you. Some drugs can even cause death.

For more information about the effects of particular drugs on your brain and body, see the body diagrams at the end of each drug fact section.

Why do people keep taking drugs when they know they're bad for you?

Drugs change the brain in ways that make quitting hard, even when you want to quit. The neurotransmitter, dopamine, is the main brain chemical responsible for making us feel motivated to do something. Dopamine is often called the "feel good" chemical. When a person takes drugs, dopamine is released in large amounts. The amounts are much larger than when you are doing normal, healthy activities.

This high level of dopamine "teaches" other parts of the brain to keep seeking out the drug. This makes the person feel like they have to take it again and again. The person becomes addicted and their brain has learned to crave the drug all the time. They no longer have control over it.

The right treatment can help someone who is addicted feel better and stop using drugs. However, drug rehabilitation is hard work! It can take many years to recover from addiction. We can protect ourselves from addiction, and all the problems it can cause us, by choosing to never start abusing tobacco, alcohol, or other drugs.

For more information about how a person becomes addicted, see the "Addiction" section at the end of this booklet.

In this booklet, we will talk about the dangers of abusing alcohol, tobacco, marijuana, prescription drugs, opioids (heroin and Fentanyl), methamphetamines, MDMA/Ecstasy, cocaine, inhalants, lysergic acid diethylamide (LSD), cannabinoids (K2 and Spices), and cathinones (bath salts). We will also discuss what the Bible says about using drugs and what causes drug addiction.

Each country is different in the types of drugs that people abuse. This booklet may not explain all of the drugs used in your country. It may list some drugs that are not a problem in your area. Take this information and use whatever parts are helpful to you in your situation.

Keep in mind…

You won't be the only one negatively affected if you choose to use drugs. Drug abuse will affect all of your relationships—your family, friends, co-workers, and schoolmates.

There are many, healthier ways to feel good instead of using drugs…talking with a friend, playing an instrument, listening to music, getting a hug, playing board games, reading books, playing sports, exercising, or sharing a delicious meal. These things are healthy, not against the law, and won't cause you problems!

Get help immediately!

If you, a friend, or a family member have a problem with drugs, talk to someone you trust—like a parent, coach, or teacher—right away. People can get better if they seek treatment. The sooner the better!

Resources for help in my community

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_____
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GLOSSARY

Here are some definitions for a few terms you will see repeated in this book.

Words about drug use

- **High**: The feeling of euphoria that the person often wants to get when they take drugs (for example, happy, excited, confident, etc.).
- **Addiction**: The inability to stop using something or doing something even if it may cause you harm.
- **Substance use disorder/drug addiction**: a treatable mental disorder that affects a person's brain and behavior—they are unable to control their use of substances like alcohol, legal or illegal drugs, or medications.
- **Withdrawal**: The unpleasant, sick feelings that an addict gets when they try to stop taking drugs (nausea, vomiting, diarrhea, anxiety, and insomnia, etc.).
- **Overdose**: Taking a poisonous amount of a drug. It can make someone very sick or even die.
- Synthetic drugs: Drugs that are produced artificially in a laboratory to imitate a natural product, or drugs made from other drugs that come from nature.
- **Depressant**: Depressant drugs slow down the messages sent between the brain and body.
- **Stimulant**: Stimulant drugs speed up the messages sent between the brain and body.
- **Hallucinogen**: A hallucinogenic drug causes people to have hallucinations—also called psychedelics. *(See definition below.)*

Words that describe how drugs can affect your brain

- **Hallucinations**: Seeing or hearing things that other people cannot see or hear—the sights and sounds are not real.
- **Delusions**: Believing things that are not actually true.
- **Paranoia**: Thinking or feeling that you are being threatened in some way even if there is no evidence (suspicion and mistrust of other people or their actions).
- **Psychosis**: Having hallucinations and delusions.
- **Depression**: A mood disorder that makes people feel sad and hopeless.

Words that describe how drugs can affect your body

- **Convulsions** are uncontrollable movements of your muscles.
- **Seizures** are uncontrolled electrical activity in your brain that causes body stiffness and sudden muscle movements
- **High blood pressure** is when the pressure in your blood vessels is too high (140/90 mmHg or higher). This makes your heart work harder to move blood through your body.
- **Respiratory failure** happens when your lungs can't get enough oxygen and it is difficult to breathe on your own.
- **Strokes** can occur when something blocks the blood supply to part of the brain, or when a blood vessel in the brain bursts. Parts of the brain become damaged or die. A stroke can cause long-term disability, lasting brain damage, or death.

- **Heart attacks** can happen when the flow of blood to your heart suddenly becomes blocked. Your heart can't get enough oxygen.
- **Cancer** is a disease where bad cells stop the good cells from doing their job. These bad cells can grow out of control and spread to various parts of the body.

ALCOHOL

What is alcohol?

For thousands of years, people around the world have been using honey, fruit, and fermented grain to make alcohol. Alcohol is a depressant drug found in beer, wine, whiskey, and distilled spirits (hard liquor). It is the world's oldest and most widely abused recreational drug. Since alcohol can be dangerous, laws were made all over the world to control who could use it, when they could use it, and how they could use it.

When a person drinks alcohol, it gets into their blood almost immediately. It goes to the brain and all parts of the body. Breaking down alcohol in the body takes time. Coffee, cold showers, and walking may make a drunk person feel more awake, but they are still drunk.

What are the problems caused by drinking too much alcohol?

1. Alcohol can harm your brain.

Alcohol interferes with the brain's communication pathways and can affect the way the brain functions. It makes it hard to think clearly and control your emotions. A person who drinks a lot of alcohol can feel confused, moody, angry, and unhappy. Alcohol is especially dangerous for young people because their brains are still growing. If you drink a lot of alcohol before your early 20's, alcohol can make permanent changes in the way your brain works. Alcohol suppresses brain activity and can harm brain development.

2. Alcohol can harm your body.

If you become drunk, it is hard to walk and move your body. It alters your coordination and balance which makes you more likely to fall. Your speech becomes slurred. There are other physical problems:

- It can cause damage to your liver, heart, and pancreas.
- Drinking too much alcohol can weaken your immune system, making it easier for you to contract diseases like pneumonia and tuberculosis.
- Alcohol can cause cancer (head, neck, heart, liver, pancreas, esophageal, breast, and colorectal).
- Someone who drinks a lot of alcohol in a short time (called binge drinking) can suffer from alcohol poisoning. They can pass-out and even die.
- If a woman drinks alcohol while pregnant, it can hurt the baby (called fetal alcohol syndrome).
- Mixing alcohol with other drugs is dangerous. Since alcohol is a depressant ("downer"), it can cause death when it is taken with other "downers."

3. Alcohol can cause social problems.

Alcohol slows down the brain and impairs judgement. This causes people to do foolish things — sometimes things that they wouldn't normally do. Because their memory is affected, they may not remember what they did while they were drunk, which can be embarrassing. Some people may even injure themselves and not realize it until the next day.

Bad judgement can lead to bad choices. Youth who drink alcohol are more likely to have premarital sex, have unplanned pregnancies, and contract sexually transmitted diseases.

When a person is drunk, it becomes harder for them to control their emotions. This might be expressed in outbursts of anger—which can lead to family fights, divorces, problems at school, and problems at their job.

4. Alcohol can cause legal problems.

Studies show that the bad judgement caused by heavy alcohol use can lead to accidents and criminal behaviors like stealing and violence. Most teenagers who go to jail were drinking alcohol or using drugs when they committed the crime.

5. Alcohol can cause accidents and car/motorbike crashes.

Drinking impairs reflexes and response time, which make it more likely the person will have an accident and hurt themselves or others. This is why drinking and driving is so dangerous. If a person drinks alcohol and drives a motorbike or a car, they will not be thinking clearly. They may not be able to react quickly enough to stop an accident from happening. The driver can severely hurt or even kill themselves, their passengers, and others whom they might hit with their vehicle. Drinking and driving is the greatest cause of fatal crashes. Impairment from alcohol also causes many other accidents, such as drownings and falls.

6. Alcohol is addictive.

Alcohol is addictive for everyone, but a child's and teen's brains are still developing. This makes it more likely that they will become addicted. Some research shows that 45% of children who drink at age 13 become alcoholics.

7. Using alcohol along with other drugs increases the negative effects of both drugs.

Some people might feel pressure from friends to use more than one drug at a time in a social setting. Using multiple drugs at once is significantly more dangerous for young people. This is dangerous for many reasons. For example, using marijuana and drinking alcohol on the same day can result in the following dangers:

- People tend to consume more of each substance than they were planning to.
- People experience more physical, mental, emotional, and psychological harm.
- Since they are more likely to drink too much alcohol, they are more likely to experience all of the negative effects of alcohol such as vomiting, nausea, and hangovers.
- They are more likely to experience the negative cannabis-related effects such as memory loss, embarrassing moments, and other mental and behavioral consequences.
- They are more likely to experience serious life-changing effects such as DUIs (traffic tickets or accidents from driving under the influence), blackouts, and loss of cognitive function.
- They are more likely to engage in risky behaviors while under the influence of both substances, which can result in life-long consequences.
- They tend to experience more harm to their school, work, and social lives. They are also less likely to take care of themselves or protect themselves well.
- They are more likely to develop an addiction to one or both substances.

EFFECTS OF ALCOHOL BODY DIAGRAM

Brain and Spinal Cord

Impaired vision
Dulled hearing
Dulled smell and taste
Altered sense of time and space
Impaired motor skills
Slow reaction
Impaired judgement
Confusion
Early onset dementia
Mood & personality changes
Feeling anxious or worried

General Body

Weight gain
Headaches
Muscle weakness
Tingling, loss of sensation in hands & feet

Gastrointestinal System

Stomach lining inflamed and irritated
Ulcers of the stomach
Loss of appetite, nausea, diarrhea, vomiting
Stomach cancer

Circulatory System

High blood pressure
Irregular heart beat
Damage to heart muscle
Increased risk of heart attack and stroke

Pancreas

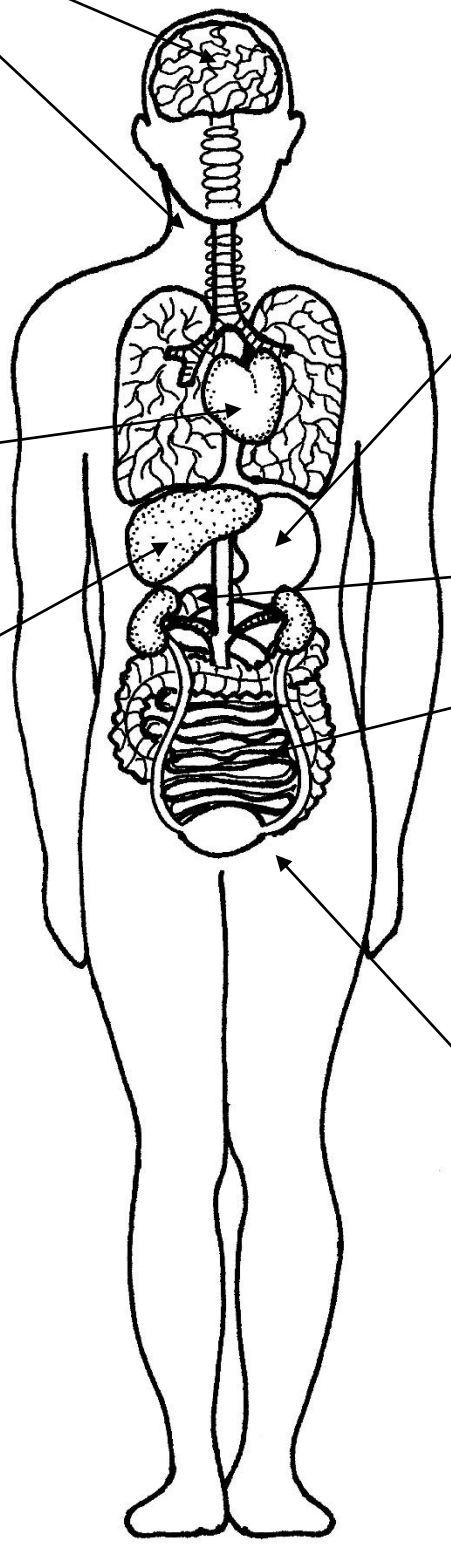
Painful, inflamed, bleeding

Intestines

Irritation of lining
Ulcers
Cancer of intestines and colon

Liver

Swollen, painful, inflamed
Cirrhosis
Cancer
Liver failure, coma and death



Reproductive System

Reduced fertility
Increased risk of breast cancer

Pregnancy and Babies

Fetal alcohol syndrome (small head, possible brain damage, delayed growth and development)
Breast cancer

TOBACCO

What is tobacco?

Tobacco is a type of green, leafy plant. Many products are made from the dried and fermented leaves of the tobacco plant. Despite the fact that tobacco is one of the most widely used legal drugs, there is **no** safe way to use tobacco or nicotine. In 2008, the World Health Organization rated tobacco as the world's single greatest cause of preventable death!

How is it taken?

Tobacco is rolled in paper and smoked as cigarettes, bidis, and kreteks. It is also smoked as loose tobacco in pipes and cigars or in a hookah (water pipe). Tobacco can be chewed and sniffed as chewing tobacco, snuff, dip, and snus. Any product containing tobacco also contains nicotine, along with many other dangerous chemicals.

Nicotine can also be extracted from certain types of tobacco plants to use as a liquid in electronic cigarettes. Vape pens, vapes, or e-cigarettes are names for battery-operated devices that people use to inhale nicotine, flavoring, or other chemicals.

What is nicotine?

Nicotine is the chemical that makes tobacco products addictive. It acts as a stimulant at lower doses and a depressant at higher doses. It is a strong poison that the tobacco plant produces to make bugs sick and keep them away! Some gardeners use nicotine as a pesticide.

Since nicotine is a poison, it can make people feel dizzy and sick to their stomach when they first start to use it. Nicotine quickly passes through the wet skin inside the nose and mouth into the body. It harms any part of the body it touches. Nicotine in any form is a highly addictive drug.

Nicotine can enter your body by:

- inhaling it into your lungs from smoked products and electronic cigarettes.
- ingesting it.
- absorbing it through the mucous membrane of your mouth (by using chewing tobacco products or liquid nicotine).
- absorbing into your skin from liquid nicotine that is spilled on your skin or touched.
- accidentally swallowing e-cigarette refill products or drinking liquid nicotine.

Children have the greatest risk of nicotine poisoning because of their lower body weight and smaller size.

If nicotine is a poison, why does anyone want to use it?

Children and teens might keep trying tobacco products because they want to feel grown-up, they think it looks cool, or they want to impress their friends. After a while, they feel less sick and finally tobacco gives them a mild, pleasant feeling of being relaxed.

What's wrong with using tobacco if it eventually makes you feel good?

Some people think that smoking will help them stay relaxed. However, research shows that long-term smoking actually increases anxiety and tension—the opposite of relaxing! People who smoke are also more likely to develop depression, which is a mood disorder that makes a person feel very sad.

Besides nicotine, tobacco contains many other chemicals. The smoke from tobacco products contains more than 7,000 chemicals! These chemicals immediately begin to cause damage to the body, especially the lungs. Lungs bring fresh air and oxygen into our bodies. Without enough oxygen, our bodies and brains don't work as well. Tobacco smoke coats our lungs with thick, sticky tar that makes it hard to breathe.

Athletes who smoke notice that they don't have as much "wind" and can't run as fast.

Tobacco smoke releases toxins that can lead to chronic bronchitis, pneumonia, and emphysema. Smoking also increases a person's risk of heart disease, strokes, and heart attacks.

The chemicals in tobacco can confuse cells in the body so that they grow out of control and become cancer. Smoking tobacco can cause lung, mouth, stomach, kidney, blood (leukemia), and bladder cancers. Removing parts of the body, like lungs, or tongues and cheeks, doesn't always stop cancer. Every year, many people die from cancer caused by tobacco.

People who live around smokers can also get sick from breathing the smoke. This is called **"second-hand" smoke**. A person can get lung cancer and heart disease from exposure to second-hand smoke. One out of every five deaths in the USA are caused by smoking tobacco or second-hand smoke!

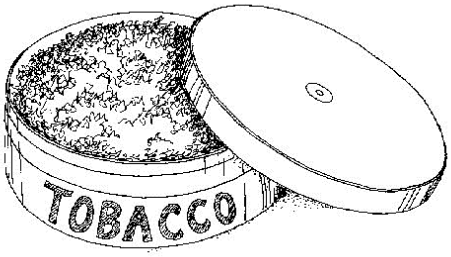
Why don't people stop using tobacco when they find out it will make them sick?

Nicotine can alter your brain chemistry within 10 seconds of inhaling it. The good feelings wear off within a few hours and the person starts to feel very uncomfortable physical and mental withdrawal symptoms. This makes the person crave another cigarette so that these bad feelings stop. Nicotine withdrawal can cause powerful cravings, irritability, depression, difficulties sleeping, anxiety, increased appetite, and trouble concentrating or remembering things.

Most adult smokers want to quit! But nicotine is highly addictive, so people find it very hard to stop using tobacco when they start to feel the withdrawal symptoms. Recent statistics show that only about 7.5% of smokers are able to stop within a year of trying to quit. People addicted to nicotine/tobacco often have to try quitting many times before they are successful.

Are smokeless tobacco products safer than cigarettes?

Chewing tobacco is not safer than smoking it. When a person chews tobacco, 3-4 times more nicotine is absorbed through the bloodstream than with cigarette smoking. It also remains in the bloodstream longer. Chewing tobacco decreases the ability to taste and smell. It causes tooth, gum, and heart disease. It also increases the risks of oral cancer and blindness.



Are E-cigarettes safer than smoking cigarettes?

Electronic cigarettes (e-cigarettes) are devices made to resemble cigarettes. They contain a battery, heater, and liquid nicotine. When heated, the nicotine becomes a vapor which people "puff." When they inhale, the vapor and the flavor or nicotine goes into their bloodstream and affects their lungs and brain.

Even though they are not inhaling the dangerous effects of tobacco smoke, vaping exposes their bodies to a variety of other harmful and toxic chemicals. Many e-cigarettes contain nicotine, heavy metals like lead, and other cancer-causing substances. The concentration of nicotine in liquid products is higher than most other tobacco products. Also, defective E-cigarette batteries have caused serious injuries from fires and explosions (mostly while the batteries were being charged).

Vaping products come in flavors with tempting scents and packaging which might attract children and pets. The liquid nicotine is especially dangerous to children. According to the American Academy of Pediatrics, as little as one teaspoon of liquid nicotine can be fatal to a 12 kilo (26 lb.) child. Even liquid nicotine spilled on the skin can be poisonous within minutes.

If you never start to smoke, you never have to worry about becoming addicted!

EFFECTS OF TOBACCO BODY DIAGRAM

Eyes
Red, irritated
cataracts

Mouth, Lip
Bad breath
Stained teeth
Sores in mouth, gums
Can't taste and smell as well

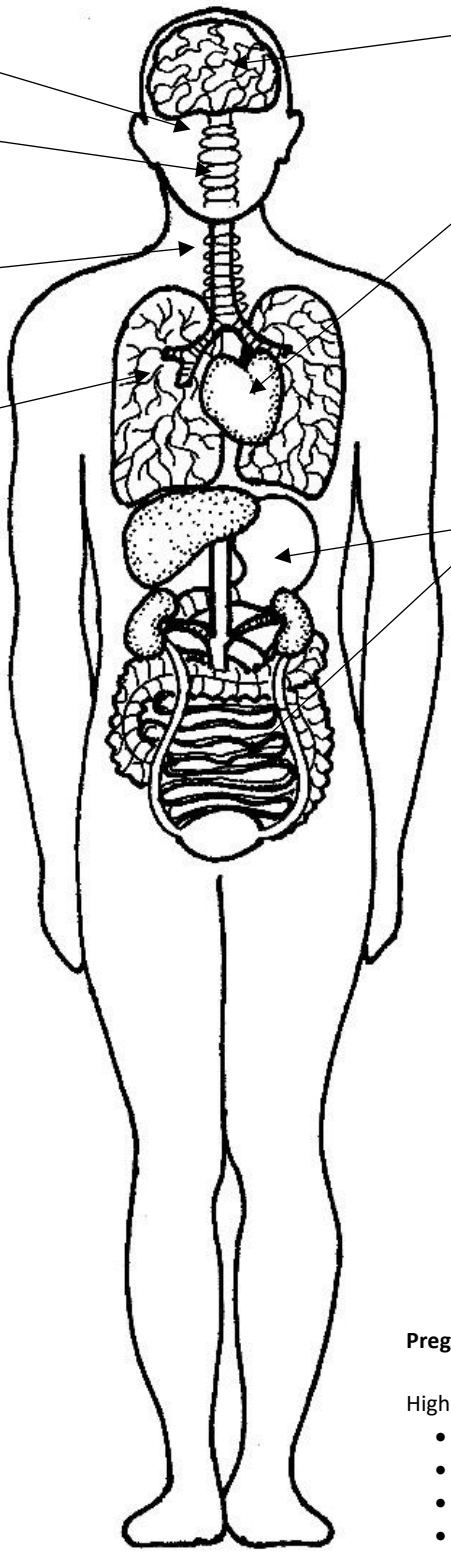
Throat, Larynx
Inflammation
laryngitis

Respiratory System
Bronchitis, coughing
Emphysema (lung disease that makes it hard to breathe)
Pneumonia
Tiredness

Cancer-causing chemicals enter lungs from E-cigarette aerosal

Bones
Brittle bones

Immune System
Depressed immune response
Increased infections



Brain
Stroke (brain hemorrhage)
Nicotine harms brain development

Circulatory System
Heart disease
Heart attack
High blood pressure
Coronary artery disease (bad circulation in the legs causing ulcers, pain, and sometimes the need for amputation)

Stomach & Intestines

Tender stomach lining
Bleeding
Ulcers, slow to heal
Cancer

Nicotine Poisoning:
Children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or eyes.

- Vomiting
- Headache/dizziness
- Abdominal pain
- Seizures
- Diarrhea
- Low blood pressure
- Abnormal heart beat
- Shock
- Coma
- Muscle weakness/paralysis
- Difficulty breathing
- Death

Risk of Cancer:

- Mouth
- Breast
- Pancreas
- Kidney
- Lung
- Stomach
- Bladder
- Reproductive System (cervix, penis, anus)
- Leukemia (begins in bone marrow, can spread to many parts of the body)

Pregnancy and Babies

Higher risk of:

- Low birth weight
- Sudden Infant Death Syndrome
- Premature birth
- Miscarriage and stillbirth
- Impairment in mental and physical development

- Nicotine is toxic to developing fetuses.
- After birth, nicotine is passed from the mother to the baby in the breastmilk.

OTHER TYPES OF LEAVES: BETEL/ARECA NUT, KHAT, COCA

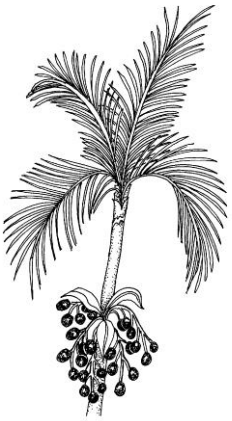
What about chewing other types of leaves?

For many years, in many places around the world, people have been chewing on leaves as a social custom or for relief from various health problems. Sometimes tobacco and other flavorings are added to the leaves and sometimes they are chewed alone. Different countries around the world have different laws about these leaves. Typically, they are legal for sale in countries where they are used culturally and banned as illegal in other countries.

Betel nut preparations from Southeast Asia, khat from Africa and the Arabian Peninsula, and coca leaves from South America are some examples of these leaves. Some countries have a long history of using these leaves in their cultures. Many people are not aware that there are some health risks to chewing these leaves that they should know about.

BETEL/ARECA NUT

What is Betel/Areca Nut?



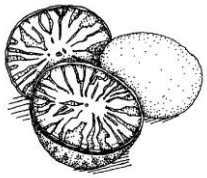
Areca nuts come from the seed of the Areca palm tree. They are used dried, fresh, or wrapped in a package called a quid. A betel quid (also called 'pan' or 'paan') usually contains betel leaf, areca nut, and powdered lime (calcium hydroxide). It often also contains tobacco, but not always. It can be used raw or boiled, roasted, fermented, and sweetened. Other things can be added for flavor, like the spices cardamom, saffron, cloves, aniseed, turmeric, or mustard. Betel is an addictive stimulant, similar to caffeine and tobacco. Some say the effect is like drinking six cups of coffee.

Betel nut is the fourth most common drug in the world—right behind caffeine, nicotine, and alcohol. It is particularly popular in Asia.

How is it used?

The areca nut mixture is not swallowed, but is placed in the mouth and kept in the cheek. Afterwards it is spat out. That's why you may see permanent red stains on public sidewalks or streets in areas where many people chew betel. You can usually tell when someone chews betel because they have red stains on their teeth.

Betel nut can have antioxidant, anti-inflammatory, antiparasitic, and antiseptic properties—these things help protect your body.



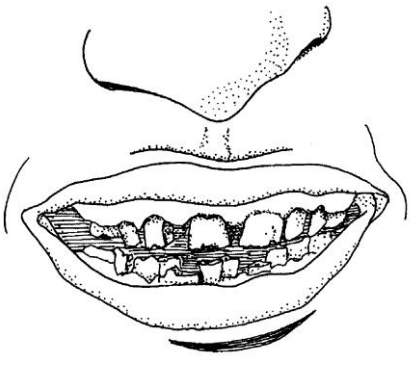
If betel nut has some health benefits, why not use it?

Unfortunately, areca nuts also contain many chemicals which are harmful to the human body. Many people who chew betel nut are not aware of the possible harmful effects.

According to the International Agency for Research on Cancer (IARC) and the World Health Organization (WHO), there is scientific evidence that chewing betel quids and areca nut causes cancer. Chewing betel nut causes cancer even when tobacco is not mixed into the quid. Scientists believe the main ingredient that causes the cancer is the areca nut. The powdered lime causes hundreds of tiny cuts in the mouth which may be the way the cancer-causing chemicals enter the body.

Cancer caused by chewing betel includes:

- Mouth (oral cavity) cancer
- Esophagus cancer
- Liver cancer
- Pancreas cancer
- Larynx cancer
- Lung cancer



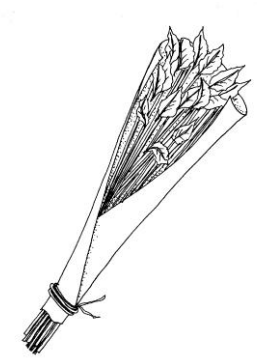
Some other negative health effects include:

- Gum damage
- Tooth decay
- Mouth ulcers
- Liver cirrhosis
- Kidney disease
- Kidney stones (KSD)—the higher the daily use of betel, the higher the risk of getting kidney stones
- The growth of tumors in different parts of the body (not just in the mouth as originally thought)

❖ Smoking tobacco along with betel chewing increases the risks of harmful effects. In a recent study, scientists reported that using a combination of areca nut and tobacco shortened the life span of the trial participants by nearly six years!

❖ Pregnant women who chew areca nut during pregnancy increase dangerous risks to their baby. The effects are similar to using alcohol or tobacco during pregnancy. Their babies had a higher risk of: lower birth weight, reduced birth length, and early term labor.

KHAT LEAVES



What is Khat?

Khat (catha edulis) is a flowering plant from eastern and southern Africa and the Arabian Peninsula. The buds and leaves of the khat plant are chewed for help with health problems and used recreationally for a mild high. Khat contains two stimulants called cathinone and cathine. Cathinone is 10 times stronger than cathine. Levels of cathinone are highest in fresh khat.

Although it is less addictive than tobacco and alcohol, people who use khat regularly can become psychologically dependent on it. They may feel that they need khat to get them through the day with work, studying, or socializing.

How is it used?

Fresh khat is usually chewed and then kept in the cheek and chewed periodically. The juices are swallowed and then the rest of it is spat out. Khat can be dried and brewed into tea or made into a paste that is chewed. Smoking it or sprinkling it on food are less common ways to use it.

When someone chews khat, their heart rate and breathing rate immediately increase. Their body temperature and blood pressure also increase. They feel more alert, excited, energetic, and talkative. This usually lasts about 90 minutes to 3 hours. Afterwards, the person often has a hard time concentrating, feels numb, and has trouble sleeping.

Street names for khat include: Abyssinian tea, African salad, Bushman's tea, Chat, Gat, Graba, Kat, Miraa, Oat, Qqat, Somali tea, tohai, and Tschat.

If a person has a mental health problem, using khat can make it worse. People who use it a lot might also have other mental health problems such as:

- Mood swings
- Violent behavior
- Psychosis (seeing things that aren't there and believing things that aren't true)
- Depression (including suicidal depression)

Physical problems might include:

- Exhaustion
- Anorexia (abnormally low body weight)
- Gum damage (Periodontal disease)
- Sore mouth
- Mouth cancer
- Gastrointestinal illness (stomach, esophagus, intestines)
- Higher blood pressure (makes your heart work harder)
- Increased risk of heart attack
- Increased risk of liver disease
- Fertility problems (trouble with reproductive system

A pregnant woman chewing khat is more likely to have these problems with her pregnancy:

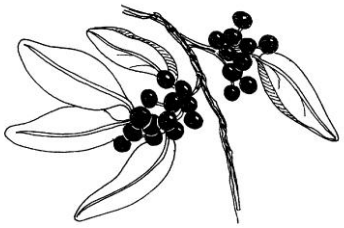
- Low birth weight
- PROM (Prelabor Rupture of Membranes)
- Increased infant mortality

❖ Mixing khat with other drugs can be unpredictable and dangerous.

COCA LEAVES

What are Coca Leaves?

Coca leaves come from the Erthroxylon coca shrub grown in South America and India. The coca shrub is one of the oldest cultivated plants of South America. The native peoples of the Andes Mountain region have used coca leaves for over 3,000 years. Coca is a significant part of the Andean culture and way of life.



How is it used?

The coca leaf is chewed whole or dried in the sun and chewed with lime powder. In India, they also chew it with betel. The traditional method of chewing coca leaf involves keeping a saliva-soaked ball of coca leaves in the mouth together with the lime powder. Coca leaves can also be brewed as tea.

Potential health benefits of coca

The South American Indians use coca as a mild stimulant and for social purposes. It is also used medicinally as a way to help them work better and to keep them from feeling too hungry, thirsty, or tired. It is used medicinally to help relieve stomach problems. It is known as being helpful with altitude sickness. Coca may be beneficial for helping people who work in extreme environments where they might not get enough oxygen—like people working high in the mountains or deep in mines underground. Coca leaves may also be a source of energy, nutrients, and vitamins.

Despite the use of coca for potential health benefits, it is banned as illegal in most countries around the world. This is because coca leaves contain the drug cocaine. Cocaine is known as a dangerously addictive stimulant drug.

Most of the research on coca has been done only on isolated cocaine which is just one part of the plant. At this time, there isn't enough scientific research to show whether or not the coca plant can be used safely for health benefits.

On an interesting note…

The original recipe for the soft drink Coca Cola contained coca leaves. The leaves were removed from the recipe once the dangerous effects of cocaine were discovered. Coca Cola has used a coca extract that does not contain cocaine as flavoring since 1903.

Risks to health

Chewing coca leaves increases the risk of teeth problems which includes problems with tooth enamel, gums, tissue, and abscesses.

What is the difference between using whole coca leaves and cocaine?

The effects of whole coca leaves are different from using the drug cocaine. Chewing coca leaves or drinking coca tea gives a mild stimulating effect but does not cause the "rush" sensation of cocaine. Although cocaine is very addictive, there is not scientific evidence that using the whole leaf coca causes the same type of addiction or withdrawal. There isn't enough research available to know if coca leaves on their own are safe to use.

A coca leaf typically contains between 0.1 and 0.9% cocaine, although it can be higher. The level of cocaine in a person's blood after chewing coca leaves and drinking coca tea are much lower than injecting isolated cocaine. However, international laws treat coca the same as cocaine.

Comparison of cocaine blood levels from chewing leaves, drinking tea, and injecting isolated cocaine

After chewing 30 g of coca leaves:	After drinking tea using 1 tea bag:	After injecting a "line" of cocaine bought on the street:
Less than 1 mg (98 ng = 0.000098 mg)	4.86-5.11 mg per tea bag (depending on the origin of the tea bag—Peru or Bolivia)	20-50 mg

(1,000,000 ng = 1 mg)

Coca tea is illegal in many countries unless the cocaine is removed (called decocainized). This can be done in a process that is similar to removing caffeine from coffee. However, even after this process, the coca tea will still contain a small amount of the drug. It is possible to test positive for cocaine in a urine sample after drinking coca tea.

In some South American countries, the possession of unprocessed coca leaves for chewing and making tea is legal but the possession of cocaine is not.

Although coca is on the United Nation's list of prohibited drugs, there is a movement in some South American countries, such as Bolivia, to protect the indigenous cultural practices among the Andean communities. Some people compare the use of whole leaf coca by the indigenous people to caffeine consumption in other cultures.

While the use of isolated cocaine is extremely dangerous, more scientific research is needed to determine how safe or unsafe it is for people to use whole leaf coca.

See more about the dangers of cocaine in the section, "Cocaine."

MARIJUANA

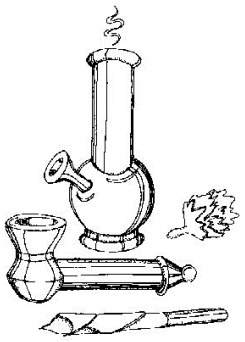
What is marijuana?

Marijuana is made from the dried leaves, flowers, and seeds of a plant called Cannabis Sativa. It is considered a stimulant, depressant, and a hallucinogen because it produces a range of effects that vary from person to person. Cannabis oil or "hash oil" is the cannabis resin in liquid form. Marijuana contains close to 500 chemicals, including THC (tetrahydrocannabinol). THC is a mind-altering compound that causes harmful health effects. It is a psychoactive drug, which means it affects how the brain works. It causes changes in mood, awareness, thoughts, feelings, or behavior. Some people use marijuana as a medicine to reduce chronic pain, but most people use it to get high.

Marijuana also contains a compound called **cannabidiol (CBD)**. CBD does not cause a "high" and is not addictive on its own. *

Marijuana is the most commonly abused illegal drug world-wide. Some of the street names are weed, herb, pot, grass, bud, bongo, ganja, Thai sticks, and Mary Jane.

How is marijuana taken?



People usually smoke marijuana rolled up like cigarettes (joints), in pipes, water pipes (bongs), or rolled in cigar wraps (blunts). Sometimes it is put into tea or cooked into food like brownies, cookies, or candy. Hashish is a concentrated form of cannabis from the resin of the plant that contains very high levels of THC. Hashish vape oil is not edible. Some people think that vaping THC oil or hashish vape oil, or using electronic cigarettes or vaping devices is safer than smoking cigarettes. However, studies show that vaping marijuana can be harmful because you still inhale the same brain-altering chemicals.

When marijuana is smoked, THC and other chemicals pass from the lungs into the bloodstream, which rapidly carries them throughout the body to the brain. The person begins to experience effects almost immediately. When marijuana is eaten in foods or beverages, the effects take longer to appear—approximately 30 minutes to 2 hours. Less THC goes into the bloodstream when marijuana is used in food or drinks than when smoking marijuana.

However, putting marijuana into food or drinks does not make it safe. There are risks from eating marijuana that are different from smoking it.

- Since it takes longer to feel the effects, you may eat too much of the food and get more THC than you intended. This can lead to poisoning.

- The intoxicating effects last longer than you might expect. (This varies, depending on the amount ingested, the last food eaten, and medications or alcohol used at the same time.)

- Children, adults, and pets can mistake marijuana products for regular food or candy. Consuming marijuana can make children very sick. They may have problems walking, sitting up, or may have a hard time breathing. Since marijuana use has been legalized in some places, accidental marijuana poisonings in children have increased.

What are other dangers of using marijuana?

Scientists are still studying how marijuana affects our bodies and brains, but research has shown the following dangers:

1. Marijuana interferes with sense of time.

THC interferes with a person's sense of time. This can lead to problems in relationships and accidents. People using marijuana may not remember how long they have been stopped at a traffic light or that they turned on the stove. They might not remember that it is time to go to work or pick their child up from school.

2. Marijuana interferes with reaction time.

People using marijuana may be slow to react and find it difficult to think clearly. They may have more accidents because marijuana decreases their motor control, balance, and coordination. It is dangerous for people to drive a vehicle under the influence of marijuana. Decreased coordination causes people to weave between lanes. They have difficulty reacting to signals and sounds on the road. Slower reactions make it hard to stop in time to prevent an accident. A person using marijuana is less safe because their brain is not functioning properly and they are unable to care for themselves well while they are high.

If you are an athlete, the negative effects on your timing, movement, and coordination can harm your athletic performance.

3. Marijuana causes damage to lungs.

If marijuana is smoked, the smoke hurts the lungs in a similar way to tobacco. This is because it has many of the same toxins, irritants, and cancer-causing chemicals as tobacco smoke. Since people smoke less marijuana than cigarettes, it will usually take longer to hurt their lungs, but the harm is the same. Smoking marijuana can also lead to a greater risk of cough and bronchitis. (The airways leading to the lungs get inflamed and fill with mucus.) Smoked marijuana can harm lung tissues and cause scarring and damage to small blood vessels. More research is needed to understand the specific effects marijuana smoking may have on lung cancer and other respiratory diseases.

4. Marijuana causes heart problems.

Marijuana can make the heart beat faster and can make your blood pressure higher immediately after use. This causes your heart to work harder to move blood through your body. It affects the circulatory system and can lead to increased risk of heart attacks and stroke.

5. Marijuana harms brain development, learning, and memory.

Marijuana use affects memory and learning. It affects the ability to pay attention and make wise decisions. Using marijuana is especially dangerous for children and teens because their brains are still growing and changing. The most current research, including MRI brain scan studies, shows that marijuana harms the brain and should never be used while the brain is still developing (before age 25).

6. Marijuana lowers your IQ.

Marijuana use can cause permanent IQ loss—as much as 8 points—when people start using it at a young age! These points do not come back, even after quitting marijuana. (IQ is a measure of someone's intelligence. It stands for "intelligence quotient." Someone with a low IQ has difficulty learning in school.)

7. Marijuana increases the risk of mental illness.

Instead of feeling happy or relaxed, some people who use marijuana experience anxiety, fear, distrust, or panic— especially when taking high doses. Sometimes they will have hallucinations—that's when you see something that isn't really there. Studies show that young people who used marijuana were twice as likely to develop schizophrenia as non-users. (Schizophrenia is a very serious and disabling mental illness that affects how a person thinks, feels, and behaves.) Teenagers who use marijuana weekly have double the risk for later depression and anxiety. Studies show a link between marijuana use and crime, depression, anxiety, and suicidal behaviors.

8. Marijuana creates problems in social functioning.

Using marijuana changes how we feel about ourselves and other people, how we act, and how we think. Research shows that people who use marijuana are more likely to have relationship problems. They are less likely to get a good education or find a good job and are less happy with their life.

9. Marijuana is dangerous for pregnant women and their babies.

Using marijuana during pregnancy can be harmful to the baby's health. It can cause lower birth weight, premature birth, and problems with brain development. It can also cause stillbirth. THC and other chemicals from marijuana can be passed from a mother's body to her baby after birth through the breast milk. This can harm the baby's continuing development.

Breathing marijuana smoke can also be bad for a pregnant woman and her baby. Secondhand marijuana smoke contains many of the same toxic and cancer-causing chemicals found in tobacco smoke. THC can be passed to infants and children through secondhand smoke. People exposed to secondhand marijuana smoke can experience psychoactive effects, like feeling high.

10. Marijuana creates addiction.

Some people think you can't get addicted to marijuana, but that is not true. Today's marijuana is stronger than ever before. It has three times the concentration of THC compared to 25 years ago. The higher the THC amount, the stronger the effects on the brain.

Approximately 1 in 10 people who use marijuana will become addicted. When they start using before age 18, the rate of addiction rises to 1 in 6. Some estimates say as many as 1 in 3 can become addicted (NIDA).

What is the difference between marijuana and hemp?

Marijuana and hemp come from different varieties of the Cannabis Sativa plant. Most manufacturers use the leaves and flowers of the hemp plant to make CBD products. The fiber of the hemp plant is extracted from the stem and can be used to make products such as rope, strong fabrics, and paper. Hemp plants also contain THC, but at very low levels—not enough to cause a high like the marijuana plant. Basically, marijuana contains more THC and less CBD. Hemp contains more CBD and less THC.

***More about CBD**

CBD is available in some places in various forms such as oils, extracts, vapes, and creams. Manufacturers use the leaves and flowers of the hemp plant to make these products. While there are some negative side effects to using CBD, scientists are researching the potential health benefits. They don't know yet how effective CBD is as a medication or what doses of it are needed to be useful. CBD is considered a "dietary supplement." Supplements are not regulated like medications. This means that it is hard to know exactly what you are getting when you buy a product, how much CBD is actually in the product, or what other elements are included. If you try using CBD for health reasons, be sure to get it from a reputable source. It's important to talk to a doctor before using CBD products because CBD can have a negative effect on other medicines that you take.

Although hemp products cannot usually cause a high, certain types of processed hemp, such as tinctures, gummies, or capsules, may still cause a high.

EFFECTS OF MARIJUANA BODY DIAGRAM

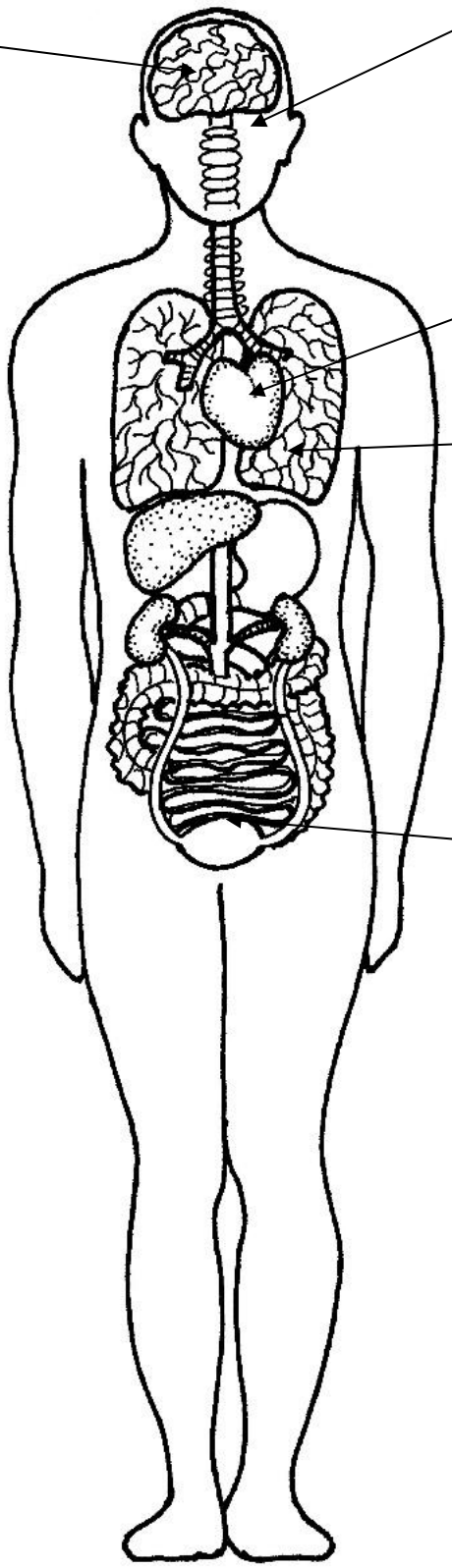
Brain
Slower reaction times
Altered sense of time
Disordered thinking
Mood changes
Lack of motivation
Hallucinations

Hypothalamus
Increased appetite

Amygdala
Anxiety & paranoia
Panicky
Depression

Hippocampus
Impaired learning & memory

Cerebellum
Decreased motor control, balance, coordination, posture



Eyes

Red, irritated

Heart
Increased heart rate

Respiratory System
Breathing
Cough
Lung sickness

Other Effects:
Severe nausea Vomiting
Lowered immunity to illness

Reproduction
Reduced sperm count in men
Pregnancy: Can harm a developing baby

MEDICINES/PRESCRIPTION DRUGS

What are medicines and prescription drugs?

Medicines are pills, tablets, capsules, syrups, suppositories, and creams used to help treat, cure, or prevent illnesses or injuries. Adults can buy some medicine in stores when they want to, but many are so powerful that even adults must have written permission from a doctor to buy them. These more powerful medicines are called **prescription drugs**.

Medicines are safe when used as directed on the package or prescribed to you by a doctor. However, all medicines can cause injury, illness, or even death if taken in the wrong dose, by the wrong person, or in combination with other drugs.

Since prescription drugs are legal, some people think they are safe and harmless to use for fun. But some prescription drugs, especially pain medicines, are very addicting. Prescriptions can be very expensive, so when the supply from their doctor runs out, some people begin using illegal street drugs, like heroin.

You need to be especially careful with pain medication. If a doctor prescribes pain medicine for you, you need to be sure to use it sparingly and only for a short time. Unused medicine should always be disposed of properly.

It is *never* okay for *anyone* to use medicines a doctor prescribed for someone else or for children to use any medicine without a parent's knowledge and approval.

Unfortunately, every year people die because they misuse prescription medicines accidentally or intentionally.

It's not "safe" just because it's "medicine"!

What types of prescription drugs are abused?

The three types of prescription drugs that are abused the most frequently are:

1. **Opioids,** also called narcotics, are made from opium. Opium is the milky sap that is removed from the pod of the poppy flower. It is refined to make morphine and other pain medicines. Some opiods are synthetic. Opioids are prescribed by a doctor when other pain relief medicines are not effective or cannot be used.

   For information about illegal opioids, see the section "Opioids: Heroin and Fentanyl."

2. **Depressants** slow down brain activity. They are prescribed for anxiety or sleep problems.

3. **Stimulants** speed up messages between the brain and body. They are prescribed for attention-deficit hyperactivity disorder (ADHD), a sleep disorder called narcolepsy, or obesity.

Prescription drugs can give you uncomfortable side effects, even when prescribed by a doctor. When people misuse them, they can be especially dangerous.

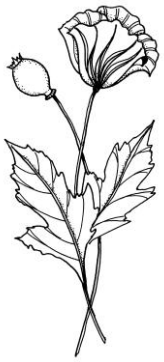
Use your prescriptions correctly.

- Only take medication that is prescribed to you—and in the correct dose.
- Never use prescriptions for any reason other than the pain or injury they were prescribed for.
- Never share your prescriptions with other people.
- Ask your doctor or pharmacist how your prescription will interact with other medications that you take. Some medicines can have a negative effect if you take them with certain other medicines.
- Pain medication isn't like an antibiotic—you don't need to finish the whole prescription. Quit using pain medication as soon as you can.

Be extremely careful of addiction to a prescription pain medication!

Some people take pain medication for a medical reason, but they can still become addicted. If you must take it for a severe injury or surgery, watch for signs that you are becoming addicted. Immediately cut back and talk to your doctor if you have the desire to take a pill because it makes you "feel good" instead of taking the pill to help stop your pain.

OPIOIDS: HEROIN AND FENTANYL



Opioids are drugs made from opium. Opium is found in the milky white fluid inside the seed pod of the opium poppy flower. Some opioids are prescription medicines that doctors sometimes give people for pain relief. Other opioids are illegal drugs that are only used to get high. Opioids can be made from the opium poppy plant or made from other pain medicines in a laboratory. Misusing prescription opioids or taking illegal opioids, like heroin, is extremely dangerous. Opioids are very addictive.

What is heroin?

Heroin is an addictive, illegal opioid made from the pain medicine morphine. Morphine is made from the opium poppy plant. It is chemically processed to make heroin. Pure heroin is a white powder. Street heroin is usually brownish white because it is diluted and "cut" or "laced" with impurities. This means other substances have been added and each dose is different. It can also be a black, sticky substance called black tar heroin.

Street names for heroin include big H, hell dust, horse, junk, Harry, white lady, brown, and smack.

How is it taken?

Heroin is usually injected, but it can also be smoked, eaten, drank, snorted, inhaled, or taken as pills. It is also sometimes mixed with other drugs, like crack cocaine. Heroin is one of the most highly addictive drugs.

Why is heroin dangerous?

1. Heroin harms your health.

Heroin use can cause severe weight loss, malnutrition, and liver disease. Injecting heroin puts you at risk for collapsed veins. Sharing needles increases your risk of long-term viral infections like HIV, Hepatitis B and C, and other bacterial infections of the skin, bloodstream, and heart. It can harm or kill an unborn baby if a pregnant woman uses heroin.

2. Heroin harms learning and memory.

Heroin changes the speed of chemicals in your brain and slows down the way you think. It also affects your memory.

3. Heroin creates social problems.

Heroin affects the way you act and make decisions, which leads to dangerous and risky behavior. The new ways that you behave when using heroin can harm your relationships and cause you many problems.

4. Heroin slows down reaction time.

Your body can't react as quickly while using heroin. This can cause accidents.

5. Heroin is unpredictable.

The strength of heroin is unpredictable and it is worsened when mixed with alcohol or other drugs.

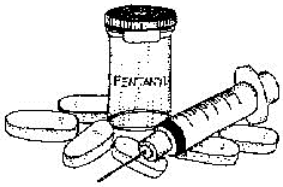
6. Heroin is very addictive.

Heroin is very addictive because it enters the brain quickly and causes a sudden, strong feeling or "rush" of pleasure. It is extremely difficult to recover from heroin addiction. There are very painful withdrawal symptoms when the user tries to stop, which causes them to need to keep taking it. New research shows that about 30% of heroin users will become addicted within 1 to 12 months.

7. There is a high risk of death associated with heroin use.

People often use heroin along with alcohol or other drugs. This is very dangerous and puts them more at risk for overdose. Overdosing can lead to coma and death through respiratory depression (slow, shallow breathing). The danger of a fatal overdose is higher with heroin and opioids than most other illegal drugs.

What is Fentanyl?



Fentanyl is a synthetic opioid which was originally used to treat severe pain—mostly for people with advanced cancer pain. It is a white powder with heroin-like effects. Fentanyl is **50** times stronger than heroin and **100** times stronger than morphine (another prescription pain reliever). Recently, there have been many cases of overdose and death linked to illegal fentanyl.

Street names for Fentanyl include: Apache, China Girl, China Town, Dance Fever, Friend, Goodfellas, Great Bear, He-Man, Jackpot, King Ivory, Murder 8, and Tango & Cash.

How is it taken?

Fentanyl can be injected, snorted, sniffed, smoked, and taken orally by pill or tablet. It can also be "spiked onto blotter paper," which means it is absorbed onto little squares of paper that people put on their tongues.

Illegal fentanyl is sold alone or in combination with heroin, cocaine, and other substances to increase its pleasurable effects. It can be made to look like fake prescription pills, such as oxycodone. Prescription fentanyl patches are misused by removing the gel from the patches and then injecting or ingesting it. Patches have also been frozen, cut into pieces, and placed under the tongue or in the cheek cavity.

Opioids are extremely dangerous!

More people die from opioid overdoses than from other drugs. Drugs containing fentanyl are the leading cause of overdose deaths in the U.S.A. (In 2021, for example, 75% of drug overdose deaths were from synthetic opioids.) Many people who overdosed on opioids did not know that the pills they took contained fentanyl. Fentanyl is often mixed with heroin, meth, cocaine, and MDMA/ecstasy.

Nitazene—Another opioid to be aware of!

Other opioids like heroin or fentanyl can contain nitazene (Isotonitazene). Nitazene, also called ISO, is mixed into the other drugs to make them more potent and cheaper. This makes them more dangerous.

Nitazenes are a newer synthetic opioid that was never approved for medical use anywhere in the world. Nitazenes, called Frankenstein Opioids, are about **40 times stronger than fentanyl!**

Unfortunately, you cannot tell if a drug contains fentanyl or nitazines by sight, taste, smell, or touch. A person buying illegal drugs, like heroin, could be taking fentanyl and/or nitazines without knowing it.

When you are sick, follow the package instructions for "over the counter" medicine carefully. Only take prescription pills as directed by your doctor and bought from a licensed pharmacist. Buying pills or drugs in other ways are unsafe and often deadly!

THE EFFECTS OF OPIOIDS: HEROIN AND FENTANYL BODY DIAGRAM

Brain
Confusion
Dizziness
Loss of white matter, affects:

- decision-making
- behavior control
- responses to stressful situations

Difficulty concentrating
Drowsiness

Hypoxia--Permanent brain damage from overdose when breathing slows or stops and brain doesn't get enough oxygen

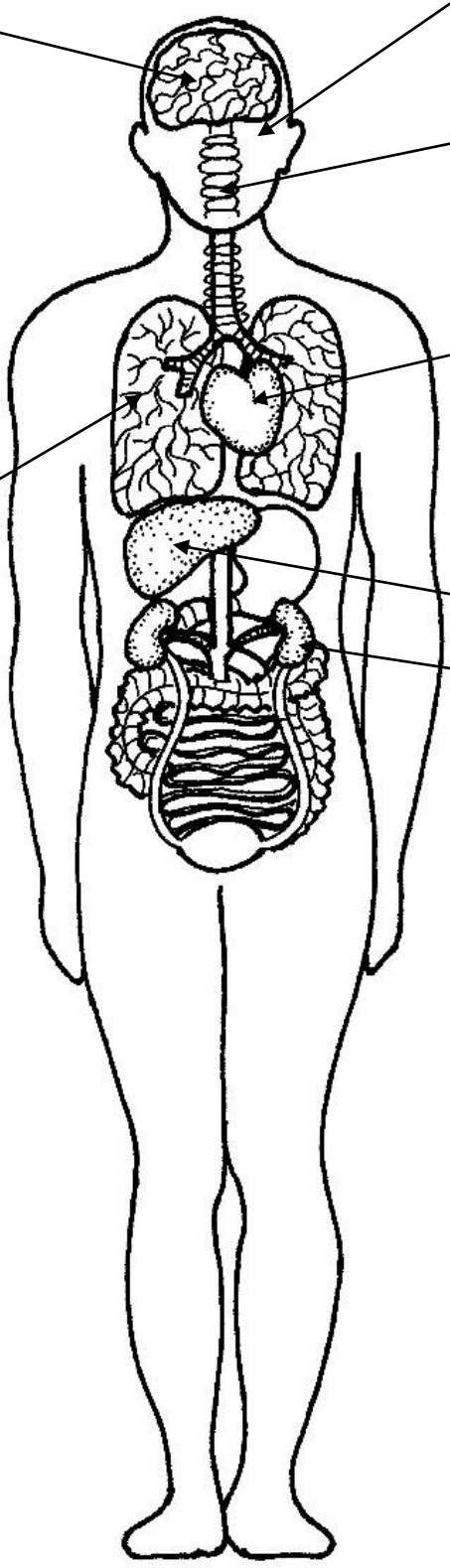
Eyes
Constricted (small) pupils

Mouth
Dryness

Heart & Circulatory System

Infection of heart lining and valves

Collapsed veins



Respiratory System
Slowed breathing
Stopped breathing
Pneumonia
Lung infection

"On the nod": a back-and-forth state of being conscious and unconscious

Respiratory failure leads to death

Liver damage

Kidney damage

Other Effects:

Nausea

Constipation

Vomiting

Muscular
Weakness
Heavy feeling in the arms and legs
Pain

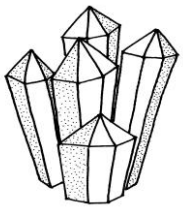
Skin
Warm flushing
Severe itching
Cold and clammy skin
Abscesses

Sharing drug injection equipment and having impaired judgment from drug use can increase the risk of contracting infectious diseases like HIV, hepatitis, and sexually transmitted diseases.

It can harm or kill an unborn baby if a pregnant woman uses heroin.

METHAMPHETAMINES

What are methamphetamines?



Methamphetamine is a very addictive stimulant drug that speeds up the messages that the brain sends to the body. Illegal methamphetamine is called "meth." Methamphetamine is usually used as a white, bitter-tasting powder or pill. Crystal meth is a form of the drug that looks like shiny shards of glass or blue-white rocks.

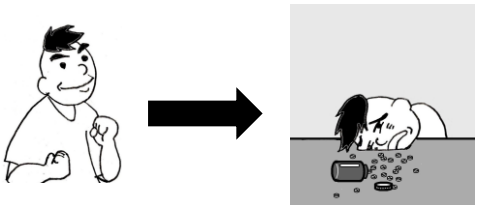
How is it taken?

People take meth by smoking it, snorting the powder up their nose, inhaling, swallowing a pill, or injecting the powder dissolved in water or alcohol with a needle.

Street names for meth are crack meth, crystal meth, tik, shabu, yaba, chalk, crank, speed, glass, crystal, and ice.

The high that people feel from taking meth doesn't last long. Because of this, some people take it again and again over a long period of time. This is called "binge and crash." When people are on a meth binge, they might give up food and sleep for several days. Taking meth in crystal form might have longer lasting effects than taking the powdered form, but taking it both ways will still lead to the negative effects.

Why are methamphetamines dangerous?



1. Meth is highly addictive.

Meth creates a "rush" (sudden, strong feeling) of confidence and energy. Many users get hooked from the very first use. Meth first acts as a stimulant, but then the "rush" is followed by depression, extreme tiredness, and a strong craving for more of the drug.

2. Meth can harm your brain.

People who use meth may feel restless and irritable. They can suffer from confusion, anxiety, panic attacks, paranoia, and hallucinations. Using meth long-term can damage your brain and cause problems with memory and regulating your emotions. It can alter judgement and decision-making skills. It sometimes triggers aggressive, violent, and strange behavior that can be dangerous. These changes in your thinking and behavior will affect your relationships and your ability to work and support yourself or your family.

3. Meth can harm your body.

Using meth increases heart rate and blood pressure. This makes your heart work harder to move blood through your body. The body temperature may go up and cause sweating. Meth can cause severe dental problems (meth mouth), intense itching (which causes sores from scratching), and brain damage. Meth users can lose their appetite, which makes them lose too much weight, and eventually they can become malnourished. They also have an increased risk of contracting HIV and Hepatitis B and C from sharing needles.

4. There is a high risk of death associated with using meth.

Meth is one of the hardest addictions to treat and many people die as a result of using it. Excessive doses of methamphetamine can lead to convulsions, seizures, respiratory failure, stroke, heart attack, or organ problems such as kidney failure. These conditions can lead to death.

5. It is dangerous to be near a laboratory where meth is made.

Most meth is made in laboratories. Sometimes people try to make meth at home by mixing chemicals with certain types of cold medicines. Cooking these chemicals can create poisonous fumes that explode. Methamphetamine labs are very dangerous. People who live near meth labs are at risk of serious injury or death from the fumes and explosions. The place that people "cook" meth is dangerously contaminated. The carpet, walls, furniture, curtains, air ducts, and even the air itself is contaminated. This pollution can spread outside of the building and into neighboring apartments and houses.

It is so dangerous, that law enforcement people and public health officials who enter meth labs need to use respirators to breathe. They need to wear gloves, goggles, and hazmat suits to protect their bodies. Meth labs are treated as hazardous waste sites.

People who are exposed to the chemicals from a meth lab might experience headaches, nausea, extreme tiredness, lethargy, and dizziness. People in close contact with a meth lab might have difficulty breathing, chest pain, and coughing. They may lose physical coordination. They may have irritation or chemical burns on their skin, eyes, nose, and mouth. There is also a long-term risk of cancer, liver, brain, and kidney damage.

A pregnant woman exposed to a meth lab is in danger of miscarriage, and the baby may be born with birth defects. Exposure to the fetus can even be deadly.

If you suspect that you might be living near an active meth lab—or that you might be living in a former meth lab—it is very important to get help from public health officials immediately. Your home will need to be tested and cleaned up for you to continue living there.

EFFECTS OF METHAMPHETAMINES BODY DIAGRAM

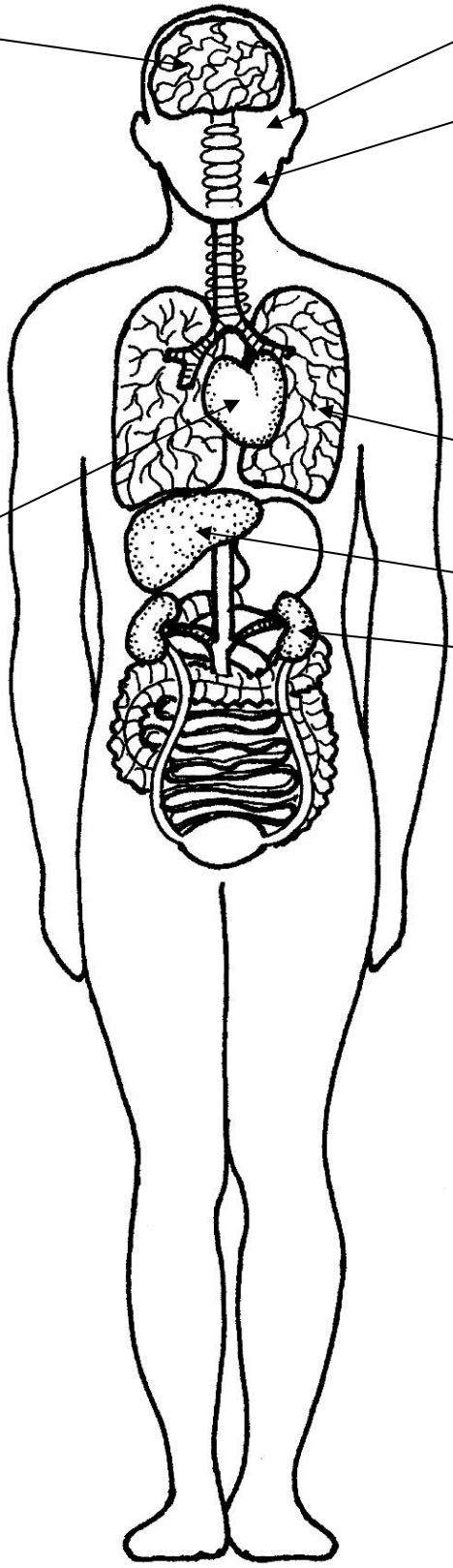
Brain

Vessel damage
Insomnia
Aggressive, violent behavior
Paranoia
Incessant talking
Decreased appetite
Irritability
Slurred speech
Dizziness
Anxiety
Confusion
Hallucinations
Obsessive behavior
Panic attacks
Depression

Eyes
Dilated pupils

Mouth
Grinding teeth
Rotting teeth (Meth Mouth)

Skin
Sweating
Numbness
Itchy—sores from scratching



Respiratory
Shortness of breath

Liver damage

Kidney damage

Heart & Circulatory System

Chest pain
Rapid heart rate

High blood pressure
Blood clotting
Stroke
Heart attack
Fast breathing

Muscular
Jerky movements
Increased activity
Convulsions
Loss of coordination

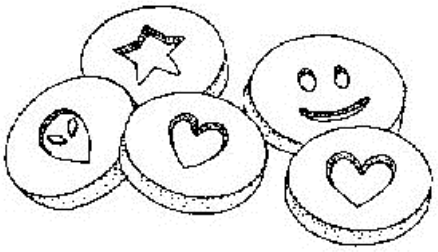
Hypothermia
Malnutrition: they don't feel hungry, so they don't eat,
Weight loss
Impaired immune system

Pregnancy:

Danger to developing baby includes premature birth and other possible problems such as heart and brain abnormalities

MDMA/ECSTASY

What is Ecstasy?



MDMA (Methylenedioxymethamphetamineis) is a synthetic drug that acts as both a stimulant and a hallucinogen. It produces an energizing effect and distorts the person's sense of time and perception—their ability to see, hear, and become aware of things by their other senses.

"Molly" refers to drugs that are supposed to be the pure crystal powder form of MDMA. "Ecstasy" refers to MDMA in the tablet or capsule form. Ecstasy may contain MDMA along with other substances.

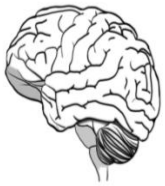
These other substances will vary in strength and effects and can be very harmful. If people use ecstasy, they cannot be sure what they are really taking and it is very dangerous. Ecstasy tablets have included methamphetamine, the anesthetic ketamine (a veterinary medicine), caffeine, diet drugs, cough medicine, heroin, PCP (phencyclidine), and cocaine, among other things. Some drugs sold as ecstasy are actually synthetic stimulants commonly found in "bath salts." *(See more about this in the section on synthetic cathinones: bath salts.)*

Some people choose to take Molly over ecstasy, because they think it is purer and not contaminated with other substances. However, lab tests have shown that capsules sold as Molly can also contain other harmful substances and some may not contain any MDMA at all.

How is it taken?

People who use MDMA usually take it as a capsule or tablet. But it can also be swallowed, injected as a liquid, or snorted as a powder. Ecstasy tablets can be in many different shapes and sizes. People often take a second dose of the drug when the effects of the first dose begin to fade. This makes it more dangerous and increases the risks of bad side effects.

Ecstasy is sometimes called a "party drug" because it is often used at "rave" parties. Street names include: E, Snackies, New Yorkers, and Disco Bisquits.



Why is MDMA/ecstasy dangerous?

1. MDMA/Ecstasy can harm your brain.

Large doses of ecstasy cause restlessness, anxiety, paranoia, and severe visual and auditory hallucinations. It can damage brain regions which cause memory loss and impair the ability to pay attention. It can cause serious depression. MDMA/Ecstasy depletes the neurotransmitter called serotonin, which is a hormone that controls your mood. This makes people have negative psychological effects that can last for several days or even years after taking the drug. These effects may stay with you even if you quit using MDMA/ecstasy. PET* scan imaging in people who stopped using MDMA show decreases in brain activity in several regions involved in learning, memory, and emotions.

*****PET scan: a type of imaging test that shows how your organs and tissues are working.

2. MDMA/ecstasy can harm your body.

A person taking ecstasy may not notice their body's distress signals—like feeling thirsty, dizzy, or exhausted—so they won't be able to take care of themselves well. Ecstasy can interfere with the body's ability to regulate temperature. It can severely damage internal organs such as the liver and the kidneys. It can cause convulsions and heart failure. The extra substances added to ecstasy will harm the body in various ways depending on what is in the pills. A person taking ecstasy can't know for sure what harm they are causing to their body since they don't know what is actually in the pills.

3. MDMA/ecstasy can affect your behavior.

Taking ecstasy clouds the user's judgment and increases the chance of him or her making bad choices. These bad choices affect their life and relationships. The risky behavior exposes them to possibly contracting infectious diseases from sharing needles and unprotected sex, such as hepatitis, HIV/AIDS, and other sexually transmitted diseases.

THE EFFECTS OF MDMA/ECSTACY BODY DIAGRAM

Brain

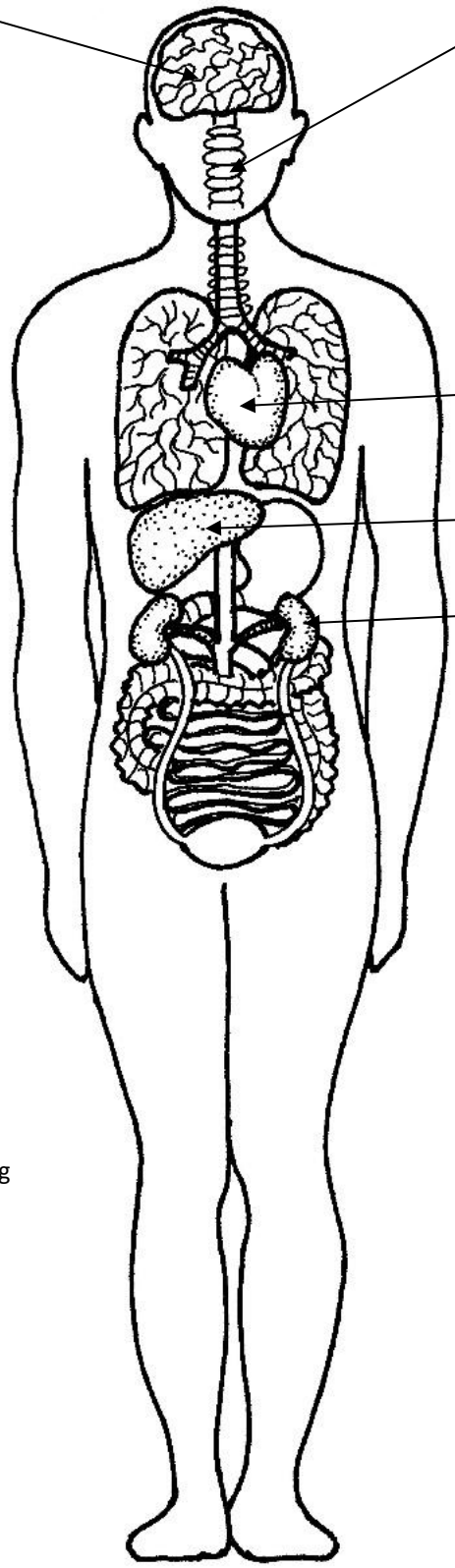
Impairs judgement
Dizziness
Confusion
Depression
Memory loss
Restlessness
Anxiety
Illogical/disorganized thoughts
Severe visual & auditory hallucinations
Swelling of the brain
Paranoia
Panic attacks
Impaired attention & memory
Aggression
Dehydration
Exhaustion
Irritability
Sleep disturbances
High blood pressure (hypertension)
Impulsivity
Lack of appetite

Loss of consciousness
Seizures

Mouth

Jaw clenching

Teeth grinding



Heart

Heart disease
Irregular heart beat (arrythmia)

Liver damage

Kidney damage

Other Effects:

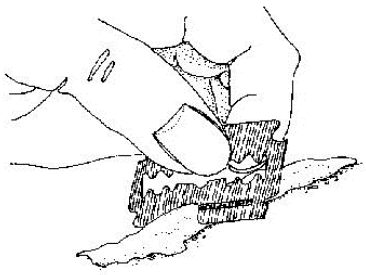
Faintness
Nausea
Hot flashes or chills
Headache
Sweats
Restless legs
Muscle/joint stiffness

Sharing drug injection equipment and having impaired judgment from drug use can increase the risk of contracting infectious diseases like hepatitis, HIV, and sexually transmitted diseases.

Pregnancy: Can harm a developing baby

COCAINE

What is cocaine?



Cocaine is a drug that is made of dried leaves from the South American coca plant. It is a stimulant which means that it can make you feel like you have more energy and are extra alert and powerful. In rare cases, cocaine is used as a prescription drug for certain surgeries. However, it is mostly used as an illegal drug to get high. Illegal cocaine looks like a very fine, white or off-white powder. Sometimes drug dealers mix it with flour, corn starch, or other substances to increase the quantity and make more profits.

How is it taken?

People use cocaine by snorting the powder through their nose or by rubbing it on their gums. They can also mix it with water and inject it into their bodies. Some people smoke cocaine that has been heated to make a rock crystal, called "crack." Crack is made by cooking cocaine powder with baking soda, then breaking it into small pieces that look like small flakes or rocks. It got its name because it crackles when it is heated and smoked. Crack is smoked in a pipe.

Street names for cocaine and crack include: coke, rock, snow, blow, white, bazooka, blanche, cake, lady, star dust, toot, nose candy, base, flake, powder, basa, and smack.

Both cocaine and crack are very, very dangerous.

Why is cocaine dangerous?

1. Cocaine can harm your brain.

Using cocaine can make you feel restless and grouchy. It can cause long-term damage to your mental health which affects your mood and emotions. It directly interferes with a type of neurotransmitter and hormone, called dopamine. This causes the users to suffer serious depression when they come off their high which could become permanent.

Cocaine can cause auditory hallucinations, paranoia, and psychosis—sensations, feelings and images that seem real even though they are not. Hallucinations from cocaine users have been described as shadows, flashing lights, objects moving, and bugs crawling on their arm. Binging on cocaine can trigger serious mental health disorders in people who have an increased risk for those conditions (psychosis and schizophrenia).

Cocaine increases stress hormones, like cortisol, in the brain. This can raise blood pressure permanently and damage the cardiovascular system. Even if the person doesn't develop psychosis or paranoia, they could develop anxiety, panic disorders, or problems with aggression or violence.

As we age, our brain naturally loses gray matter, which results in memory loss in old people. However, research shows that people who abuse cocaine, either currently or in the past, lose twice as much gray matter as the average person who does not use cocaine. This changes their cognitive ability and results in memory problems and even dementia (the ability to remember, think, and make decisions). High doses of cocaine may even kill brain cells.

2. Cocaine can harm your body.

Cocaine makes the heart beat faster and blood pressure and body temperature go up. Users might experience convulsions, seizures, and cerebral hemorrhage (bleeding in the brain). Smoking cocaine can cause respiratory problems (breathing problems). Snorting it can damage the septum (the dividing wall between the nostrils), causing a hole in the middle of the nose.

Cocaine can have serious long-term effects on the user's health. It can damage their cardiovascular system. The cardiovascular system (the heart and blood vessels) is important because it pumps blood from your heart to your lungs to get oxygen. This can lead to damage in many other organs, including the brain. The linings of the veins and arteries can be damaged, which can cause chronic headaches, blood clots, and stroke. It can cause seizures, either temporarily or long-term.

Injecting cocaine can lead to abscesses (pockets of pus in the skin). Sharing needles can lead to HIV/AIDS, hepatitis and other infectious diseases.

3. Cocaine affects your behavior.

When people use cocaine, their behavior can become bizarre, unpredictable, and violent. They are more likely to make bad decisions. They are often unable to adapt to the negative consequences caused by their bad behavior.

4. Cocaine is very addictive.

Cocaine is so addictive that people can get hooked after trying it just <u>one</u> time!

The high people feel from using cocaine wears off very quickly, so many people "binge" when they use it. This means that they take many doses back-to-back to keep the effects going. Binging increases the risk for addiction. When they come down from the high, they often suffer a "crash" where they feel depressed, nervous, and extremely tired. That makes them crave more of the drug to feel good again. The depression after a cocaine binge can be severe and last for several days.

5. People who use cocaine are in danger of overdose.

Sometimes a very powerful opioid drug is added to cocaine called fentanyl. People often buy cocaine without knowing that fentanyl has been added to it. Adding drugs like fentanyl to cocaine can increase the chance of a drug overdose. *(See more information about fentanyl in the "opioid" section.)*

Mixing cocaine with alcohol is extremely dangerous and can increase the chances of sudden death. Alcohol combined with cocaine is the most common two-drug mixture when sudden death occurs.

Cocaine is so dangerous that using it just <u>once</u> can cause a heart attack, stroke, coma, or even death.

EFFECTS OF COCAINE BODY DIAGRAM

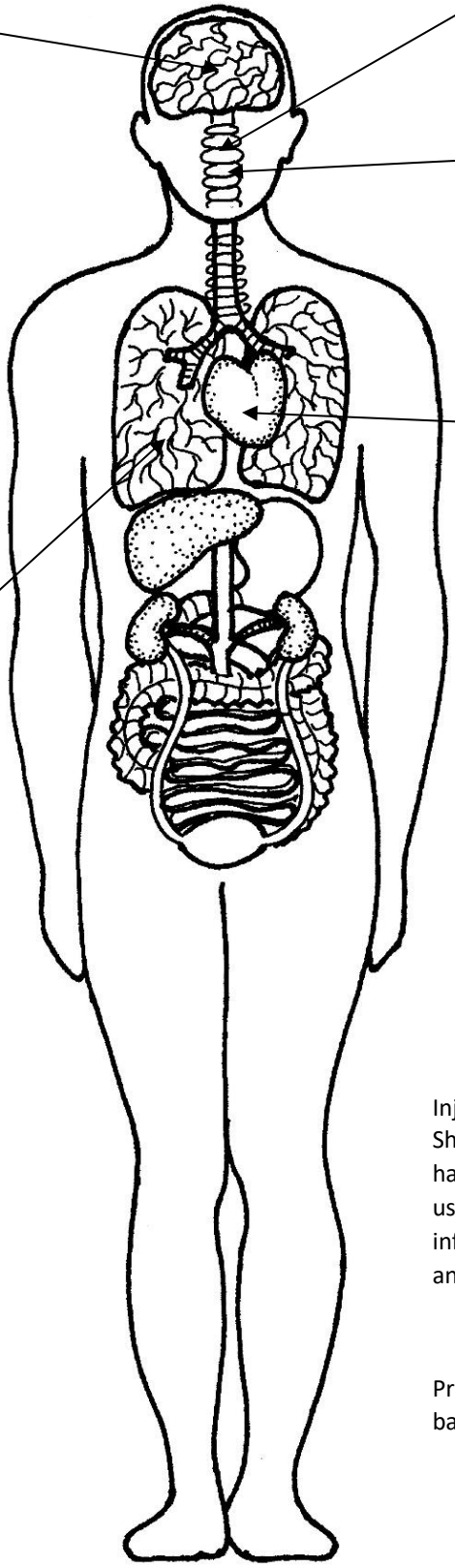
Brain

Feeling out of control
Easily annoyed
Distrustful of others
Depression
Anxiety
Panic disorder
Restlessness
Grouchiness
Nervousness
Aggression & violent behavior
Auditory hallucinations
Paranoia
Psychosis
Loss of gray matter
Cerebral hemorrhage
Headaches
Sensitive to light, sound and touch

Respiratory System

Coughing
Lung problems

Other:
Weight loss
Malnutrition
Extreme tiredness
High body temperature
Seizures
Convulsions



Nose

Nosebleeds
Hole in septum between nostrils
Loss of smell

Mouth
Problems swallowing

Heart & Circulatory System
Irregular, fast heart beat
High blood pressure
Vein & artery damage
Stroke
Heart attack
Coma
Blood clots
Death

Injecting cocaine can lead to abscesses. Sharing drug injection equipment and having impaired judgment from drug use can increase the risk of contracting infectious diseases like HIV, hepatitis, and sexually transmitted diseases.

Pregnancy: Can harm a developing baby

INHALANTS (SNIFFERS)

What are inhalants (sniffers)?

Inhalants (sniffers) are household and industrial chemicals that were never intended to be used as drugs. When the chemical vapors are breathed in through the nose and mouth, they cause changes to your mind and behavior and can cause hallucinations. They are absorbed into the bloodstream very quickly and give the user an immediate high.

Many people don't realize the dangers of breathing toxic fumes because they see them as ordinary household products like spray paint, glues, and cleaning fluids. These toxic household chemicals are made from tiny molecules stuck together. Some of the molecules break off and float into the air. That is why you can smell them.

Sniffers usually have a strong, unpleasant smell and often burn explosively. Their fumes or gases are breathed in through the nose or mouth in a number of ways, called sniffing, snorting, huffing, or bagging. Inhalants cause the users to feel dizzy, sleepy, and "different."

There are 4 main types of inhalants. Most of these are depressants.

1. **Volatile solvents** are liquids that turn into a gas at room temperatures. These are liquids that are able to dissolve other substances. They can change suddenly and unexpectedly.
   For example: paint thinners and removers, glues, petrol, and correction fluid (Liquid Paper™)
2. **Aerosol sprays**
   For example: spray paints, deodorants, hairsprays, insect sprays, and vegetable oil sprays
3. **Gases**
   For example: nitrous oxide (laughing gas), propane, butane (cigarette lighters), and helium
4. **Nitrites**
   For example: room deodorizers and leather cleaners.

Street names for inhalants include: poppers, gluey, huff, rush, and whippets.

Some people may think sniffers seem safe because they are found in familiar household products but…

SNIFFERS ARE NOT SAFE!!!

Sniffers can cause death or permanent damage to bodies and brains the first time they are used. These chemicals were never meant to be used as drugs, and there is **no** safe way to breathe toxic fumes.

Why are sniffers dangerous?

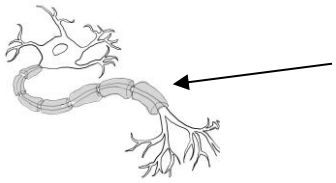
1. It is impossible to judge how much chemical you are sniffing.

Chemicals that are sniffed cause immediate effects on the body and brain, similar to alcohol and marijuana. Unlike alcohol and marijuana, however, it is almost impossible for the user to judge how much of the chemical they are sniffing. Products vary in strength and their judgement and memory are immediately affected.

2. Sniffers can harm your brain.

If a person breathes toxic fumes, the molecules enter their nose and are absorbed into the bloodstream through tiny blood vessels. The toxic molecules quickly travel to the brain where they can destroy delicate brain tissue.

The poison in inhalants can kill so many brain cells that the brain tissue actually shrinks! People who abuse sniffers may have difficulty with memory, learning, and thinking.



Sniffers dissolve the protective coating, called myelin, on brain neurons. **Myelin** helps messages travel rapidly along nerve cells. When myelin is damaged, messages move too slowly—resulting in muscle spasms, tremors, and even difficulty walking and talking.

Sniffers can affect the user's mood even when he or she is not sniffing. The sniffer may feel like nothing about life seems good or hopeful—a condition doctors call depression.

3. Sniffers can harm your body.

- Sniffers can cause hearing loss from some of the chemicals found in spray paints, glues, cleaning fluids, and correction fluids (toluene and trichloroethylene).
- Sniffers can cause bone damage. The use of gasoline (benzene) can damage bone marrow. Bone marrow is very important. It is in the center of your bones and it makes blood cells.
- Repeated use of sniffers can cause major damage to the heart, lungs, liver, and kidneys.

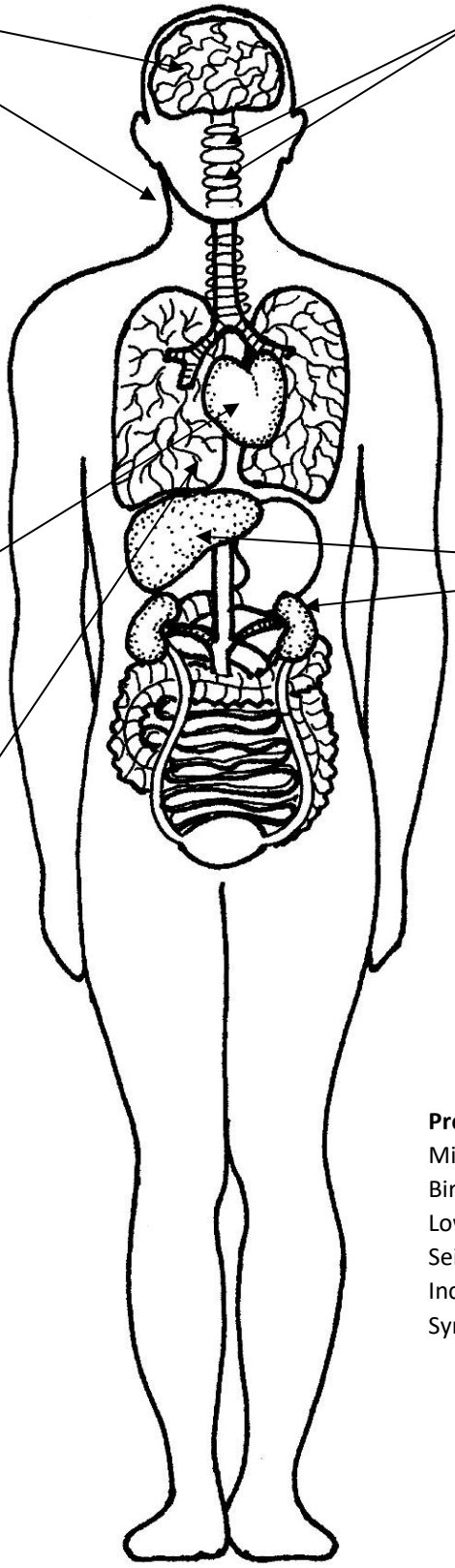
4. Sniffers can cause death even after using just <u>one</u> time.

Using sniffers, even just one time, can kill you. Sniffing highly concentrated amounts of the chemicals in solvents (liquids used for dissolving) or aerosol sprays can cause heart attacks and even death within minutes. This is known as "Sudden Sniffing Death." Sudden Sniffing Death can happen the first time you use inhalants or any time after. You can also die from lack of oxygen since you are filling your lungs with chemicals instead of air.

Be careful around household products with sharp odors. If you have to paint indoors, be sure to open the windows and get plenty of ventilation.

There is no safe sniffer, no safe amount, and no safe way to use them. Permanent damage or death can happen even the <u>first</u> time.

INHALANT (SNIFFERS) BODY DIAGRAM



Brain & Spinal Cord

Cell damage
Brain hemorrhage
Seizures
Permanent brain damage
Personality problems: apathy, mood swings, hostility, aggression
Depression
Irritability
Problems with memory and learning

Shake when moving
Poor coordination

Nose & Mouth
Nose bleed
Rash around nose & mouth
Bad breath

Less severe, but common effects:
Extreme tiredness
Nausea
Loss of appetite
Headache
Body odor
Muscle cramps
Difficulty walking & talking

Liver damage

Kidney inflammation & damage

Heart & Circulatory System

Permanent heart damage
Heart slows down (can cause heart attack, coma, and death)
Irregular heart beat
High blood pressure or sudden decrease in blood pressure
SSD: Sudden Sniffing Death

Bone Marrow

Depressed immune system, so you get sick more easily

Reduced red & white blood cells

Increased infections

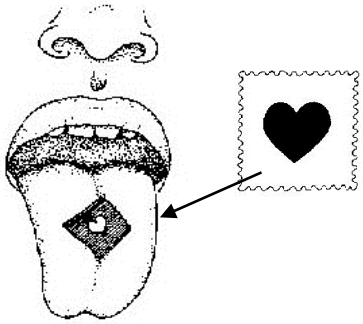
Respiratory System

Lungs
Reduced oxygen
Infection
Coughing
Colds

Pregnancy & Babies
Miscarriage (unborn baby dies)
Birth defects
Low birth weight
Seizures
Increased risk of Sudden Infant Death Syndrome (SIDS)

LYSERGIC ACID DIETHYLAMIDE (LSD)

What is LSD?



LSD (lysergic acid diethylamide) is one of the most potent hallucinogens. It is considered a "psychedelic drug" because it changes a person's mood and the way they think and see reality. LSD distorts the senses and makes color, sound, and touch seem more intense. It is a semi-synthetic drug which is found in a fungus that grows on rye and other grains. It is a colorless, odorless substance with a slightly bitter taste. LSD's effects are similar to other hallucinogens, such as PCP, mescaline (from the peyote cactus), and psilocybin (from a type of mushroom).

Street names for LSD include acid, blotter acid, dots, mellow yellow, and window pane.

How is it taken?

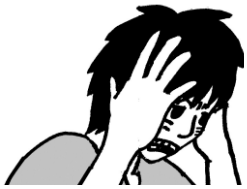
LSD is usually swallowed. It is usually sold as small, decorated squares of blotter paper with drops containing the drug that are put on the tongue. It can also be taken as tablets, capsules, micro-dots (tiny tablets or capsules), saturated sugar cubes, capsules, or sometimes in liquid form.

Why is LSD dangerous?

1. LSD harms your body.

The physical effects of LSD include sweating, dry mouth, dilated pupils, increased heart rate, increased blood pressure, loss of appetite, sleeplessness, and tremors. Death after LSD use is rare. If death occurs, it is usually due to accidents, suicide, or accidentally ingesting poisonous plant materials. Psychological and emotional effects are more common with LSD.

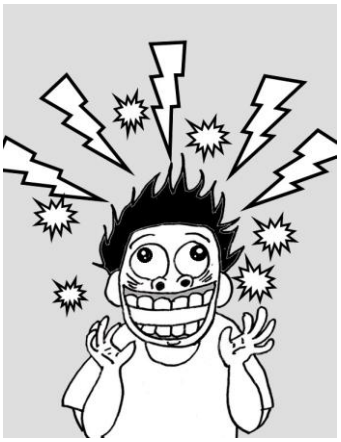
2. LSD has severe psychological and emotional effects.



LSD produces delusions and distorted perceptions. For example, the shape and size of objects, movements, colors, sounds, touch, and the user's own body image are distorted. Some LSD users experience severe, terrifying thoughts and feelings of despair. They may become afraid of insanity, losing control, or death. LSD users may have extreme changes in mood. Serious psychological harm can occur after using LSD, including depression, anxiety, and paranoia (fear and mistrust of other people). These symptoms can be long-lasting.

3. Users can continue to experience psychological effects long after an LSD "trip."

H.P.P.D. (Hallucinogen Persisting Perception Disorder) is a long-term effect that can happen after using LSD. This means that users can experience "flashbacks" for days, months, or even many years after the last dose of using it! "Flashbacks" are memories of past experiences that feel as if they are taking place in the current moment. These bad memories come back without warning and cause the person distress and impairment.

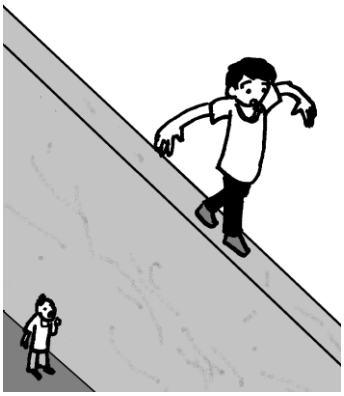


People who suffer from H.P.P.D. say that:

- Colors, shapes, and motions seem to run together.
- They see streaking, trailing, and blurry “after-images” in their surroundings.
- They sometimes see sparkles, bright bolts of light, starbursts, and blobs of color floating around.
- They see halos around objects and around people’s heads.
- They feel burning, throbbing, numbing, and tingling.
- Some say that it looks like the walls are breathing, objects vanish into the floor, or that trees begin to shake when they walk past.

These symptoms are very disturbing and a high percentage (65%) of people with H.P.P.D. have chronic panic attacks. Half of them suffer from major depression. The central nervous system of a person with H.P.P.D. has been changed.

4. Impaired mental ability can cause other accidents.



LSD can impair a person’s judgement. This makes it hard for them to see common dangers and makes it more likely that they will have an accident. Users sometimes believe that they have superhuman powers, which makes them risk doing dangerous things. For example, they might jump off a building believing that they can fly.

5. LSD is addictive.

A person using LSD will develop tolerance. This means that they have to take larger doses to achieve the same effects as they did when they first began to use. Longer, more intense “trips” can happen with larger doses.

EFFECTS OF LSD BODY DIAGRAM

Brain

Delusions
Distorted perceptions.
Terrifying thoughts and feelings
Fear of insanity and death
Despair
Depression
Anxiety
Paranoia

H.P.P.D. (Hallucinogen Persisting Perception Disorder):

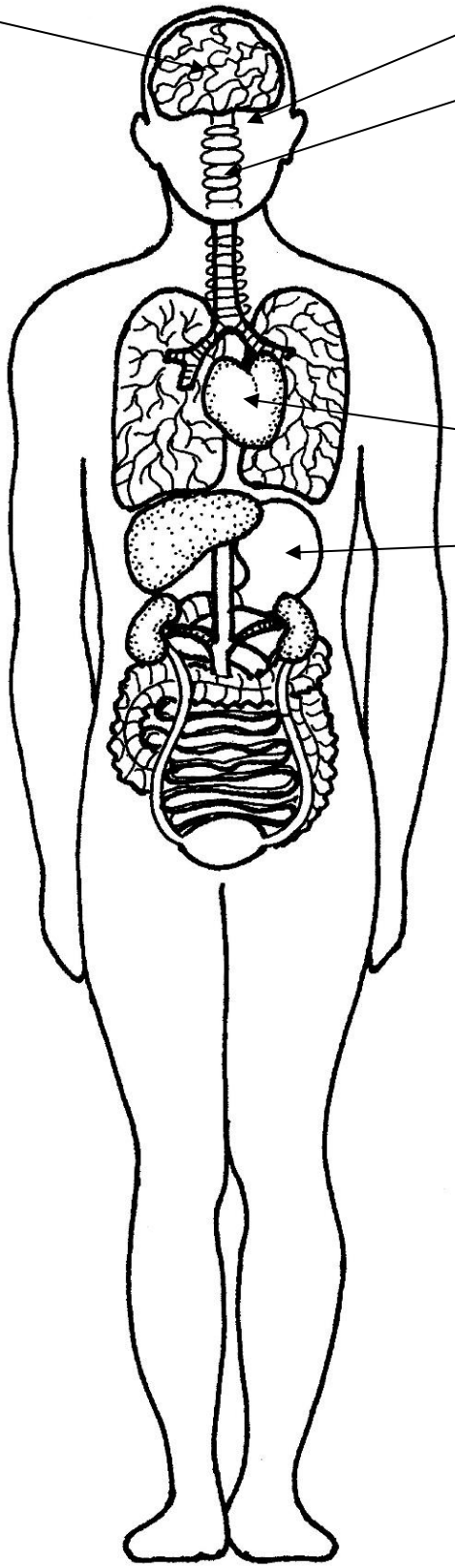
Flashbacks
Burning
Tingling
Numbing

Disturbing visual images:

- Objects blurring together
- Flashes of light
- Halos around heads
- Seeing things move

General Body
Increased body temperature

Skin
Sweating



Eyes
Dilated pupils

Mouth
Dryness

Blood
High blood pressure

Muscles
Numbness
Weakness
Tremors

Heart
Increased heart rate

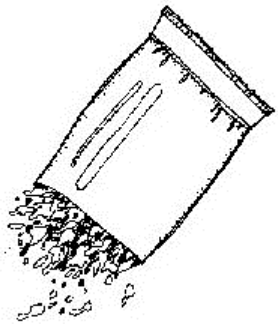
Gastric
Nausea

If death occurs, it is usually due to accidents, suicide, or accidentally ingesting poisonous plant materials.

Pregnancy: Can harm a developing baby

SYNTHETIC CANNABINOIDS (K2 and SPICE)

What are synthetic cannabinoids (K2 and Spice)?



K2 and Spice are new psychoactive substances (NPS). They are two of the many brand names for synthetic cannabinoids. Synthetic cannabinoids are made to imitate THC, the main ingredient of marijuana. They are sometimes called "synthetic marijuana" or "fake weed." These substances are not newly invented. The word "new" in the title indicates that they have become newly available on the market.

The chemicals are in powder form and contain lab-made substances that produce a high. The powder is dissolved in liquids like acetone or embalming fluid. Then it is sprayed onto dry plant material to make "herbal incense" or "potpourri" products. These products have no legitimate medical or industrial use. They are only used to get high.

Cannabinoids are not natural. They are chemical compounds created in a laboratory. The only parts of these products that are natural are the dried plant materials that the chemicals are sprayed onto.

Some of the many street names of K2/Spice synthetic marijuana are Spice, K2, Blaze, Red X Dawn, Paradise, Demon, Black Magic, Spike, Mr. Nice Guy, Ninja, Zohai, Dream, Genie, Sence, Smoke, Skunk, Serenity, Yucatan, Fire, and Crazy Clown.

How are K2 and Spice taken?

People usually smoke the dried plant material by using a pipe, a water pipe, or rolling it in cigarette papers. Users also mix the sprayed plant material with marijuana or brew it as tea. The powder can also be dissolved in solution to make liquid incense that is used in e-cigarettes or other vaping devices.

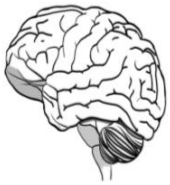
Why are K2 and Spice dangerous?

1. Synthetic cannabinoids can be up to <u>100</u> times stronger than marijuana.

Since they are more potent than marijuana, the effects are even more severe than the effects from THC. This can be unpredictable and dangerous.

See the section, "Marijuana," to read about the health effects caused by using products with THC.

2. K2 and Spice can harm your brain.



Synthetic cannabinoids can cause mild to severe reactions in the user's central nervous system (CNS). Those reactions affect the brain as well as the nerves found throughout the body and the spinal cord. The person might feel:

- Sleepy
- Dizzy
- Agitated
- Irritable
- Anxious
- Confused

They might have trouble with coordination and difficulty concentrating. Cannabinoids can cause depression of the CNS—this means that the CNS slows down, even to the point of coma.

Some users have dangerous and intense hallucinations. They feel things and see things that seem real even though they are not. They can have disordered thinking and paranoid delusions. That means they are fearful and suspicious of other people and believe things that aren't true. They can't tell what is real and what is not real. They might think someone is trying to hurt them when they really are not.

3. K2 and Spice affect your behavior.

People can react to the intense hallucinations with dangerous behavior after smoking products with K2 and Spice. This includes violent behavior, extreme and unreasonable distrust of others (paranoia), and suicidal thoughts. There have been a number of unexplained suicides associated with the use of synthetic cannabinoids.

4. K2 and Spice can harm your body.

Synthetic cannabinoids are bad for your health in many ways! Some of the effects include:

- Nausea
- Vomiting
- Dizziness
- Numbness
- Tingling
- Rapid breathing
- Rapid heart rate
- High blood pressure
- Tremors
- Seizures
- Unconsciousness
- Coma
- Chest pain
- Stroke
- Death by heart attack or organ failure

Synthetic cannabinoids can injure your kidneys to the point where you need hospitalization and dialysis. (Dialysis is a process where your blood is removed from your body and filtered to remove harmful substances. Then the clean blood is put back into your body.)

These drugs can also damage muscle tissue that can be fatal or permanently disabling. The bad health effects can be long-lasting and remain even after you quit using K2 and Spice.

5. You can become addicted to K2 and Spice.

Regular users trying to quit might experience withdrawal symptoms such as headaches, anxiety, depression, and irritability.

6. K2 and Spice can cause overdose.

An overdose occurs when a person uses too much of a drug and has a dangerous reaction that results in serious harmful symptoms or death. Death can also occur when dangerous synthetic opioids, such as fentanyl, are added to the packaged mixture without the user knowing it.

If K2 and Spice are dangerous, why does anyone use them?

Cannabinoids don't show up on drug screening tests like marijuana does. Drug users who know they need to be tested—maybe to get a job or if they are in a drug treatment program—might use these instead of marijuana to avoid testing positive.

Manufacturers sell these products in colorful foil packages and plastic bottles to attract buyers.
They often claim they are safe, legal alternatives to marijuana. Some young people think they are natural and therefore harmless.

This is not true! Cannabinoids are not natural and they are not safe!

Synthetic cannabinoids can have a more powerful impact on your brain than marijuana. They have unpredictable effects and can be dangerous and even life-threatening.

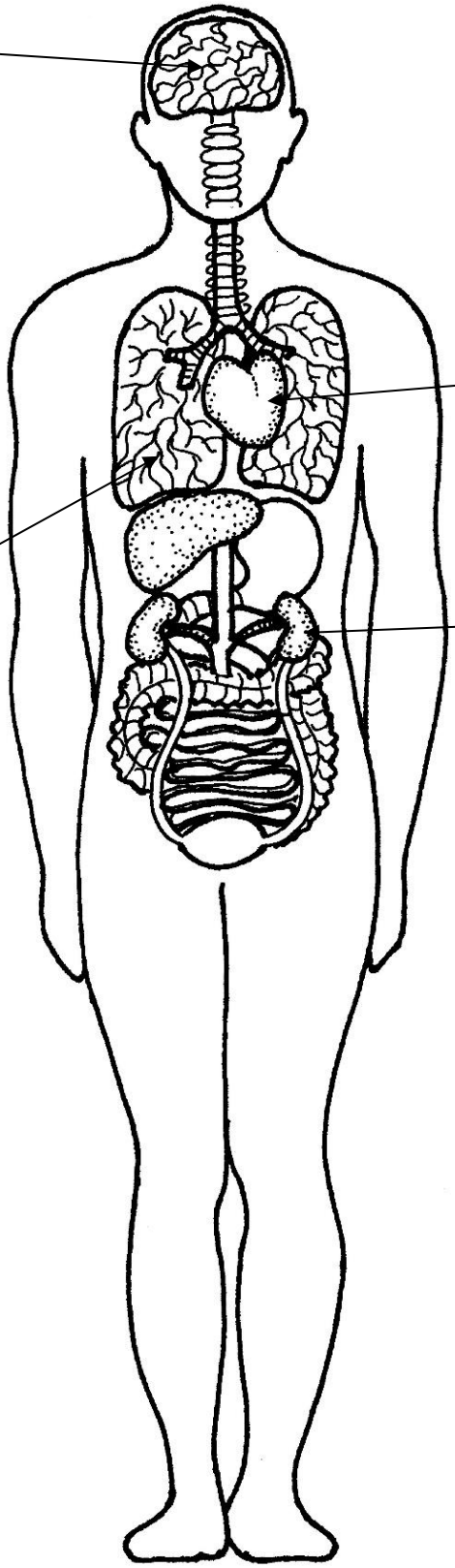
THE EFFECTS OF CANNABINOIDS (K2 and SPICE) BODY DIAGRAM

Brain
Headaches
Anxiety
Depression
Irritability
Extreme and unreasonable distrust of others
Suicidal thoughts

Unconsciousness
Coma
Violent behavior

Circulatory System
High blood pressure
Rapid breathing

Cancer research is not yet available for NPS drugs.



Other Effects:
Nausea
Vomiting
Tremors
Seizures
Dizziness
Numbness
Tingling

Heart
Rapid heart rate
Chest pain
Stroke
Heart attack

Kidneys

Damage may require dialysis.

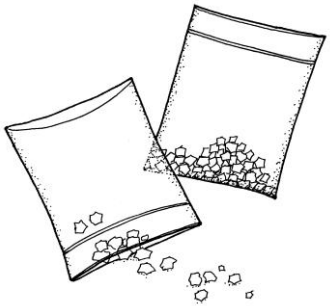
Organ failure
can cause death

Muscle Tissue
damage that can be fatal or permanently disabling

Pregnancy: Can harm a developing baby

SYNTHETIC CATHINONES (BATH SALTS)

What are synthetic cathinones (bath salts)?



Synthetic cathinones, known as bath salts, are human-made stimulants that are sometimes called "designer drugs." They are new psychoactive substances (NPS) that are chemically related to cathinone, which is a substance found in the khat plant. Khat is a shrub grown in East Africa and southern Arabia where some people chew its leaves for their mild stimulant effects.

For more information about chewing khat, see the section, "Khat Leaves."

Bath salts used to get high are not the same thing as Epsom salts that some people use for bathing. Epsom salt does not contain mind-altering ingredients like synthetic cathinones.

Synthetic cathinone looks similar to Epsom salts, so it received this name as a disguise. Synthetic cathinones usually take the form of a white or brown crystal-like powder and are sold in small plastic or foil packages labeled "not for human consumption." Bath Salts are sold as a pill, capsule, powder, or crystal. They can be labeled as bath salts, plant food, jewelry cleaner, research chemicals, glass cleaner, or phone screen cleaner. The powdered form can also be compressed in gelatin capsules.

When someone uses bath salts, the effects are similar to the effects of cocaine, methamphetamine, and MDMA (the active ingredient in ecstasy pills). Sometimes drug dealers fill those other drugs with cathinone and then sell them as cheap substitutes—without the buyer knowing. For example, pills sold as the drug "Molly" will often contain synthetic cathinones instead of the MDMA that the buyer is expecting. Human-made versions of cathinone can be much stronger than the natural product and are very dangerous.

How are bath salts taken?

Bath salts are typically swallowed, smoked, snorted, or put into a solution and injected into veins.

Street names for bath salts include: Bliss, Blue Silk, Cloud Nine, Drone, Energy-1, Ivory Wave, Lunar Wave, Meow Meow, Ocean Burst, Pure Ivory, Purple Wave, Red Dove, Snow Leopard, Stardust, Vanilla Sky, White Dove, White Knight, and White Lightning.

Why are Bath Salts dangerous?

1. Bath salts can harm your brain.

Since synthetic cathinones are chemically similar to drugs like amphetamines, cocaine, and MDMA (ecstasy), the effects on your brain will be similar. However, one study found that a common synthetic cathinone affects the brain at least 10 times more powerfully than cocaine! Synthetic cathinones can cause psychosis with paranoia, hallucinations, and delusions.

That means people might see and hear things that aren't really there. They get suspicious and believe things that aren't true. People can become extremely agitated and confused. They might become fearful and have panic attacks.

2. Bath salts can have unpredictable effects on your behavior.

The combination of aggressiveness, hallucinations, and extreme paranoia has very unpredictable results on the bath salt user's behavior. They can become very aggressive, violent, and want to fight others or hurt themselves. It can take 5 or 6 men to restrain a bath salts user!

3. Bath salts harm your body.

The effect of bath salts on your body is similar to other stimulants like methamphetamine, MDMA, and cocaine. The effects include:

- Teeth grinding
- Sweating
- Headaches
- Dehydration
- High body temperature (hyperthermia)
- Heart palpitations
- Rapid heartbeat
- Chest pain
- High blood pressure (hypertension)
- Convulsions
- Seizures
- Kidney failure

Your pupils may also stay dilated for a long time—That means that the black part of your eye is larger than normal.

You can also suffer from the breakdown of skeletal muscle tissue. People have even died from intoxication using synthetic cathinones. The worst outcomes are usually associated with snorting or needle injection.

4. Bath salts can be addicting.

People who use bath salts have reported that they trigger intense, uncontrollable urges to use the drug again. They can cause strong withdrawal symptoms that include depression, anxiety, tremors, problems sleeping, and paranoia. These unpleasant symptoms cause the user to keep taking the drug.

5. Bath salts can cause over-dose.

Bath salts are often miss-sold as MDMA (ecstasy) or cocaine. When people think they are taking ecstasy or cocaine, they take a higher dose. Baths salts are much more potent and so taking a high dose increases the risk of overdose.

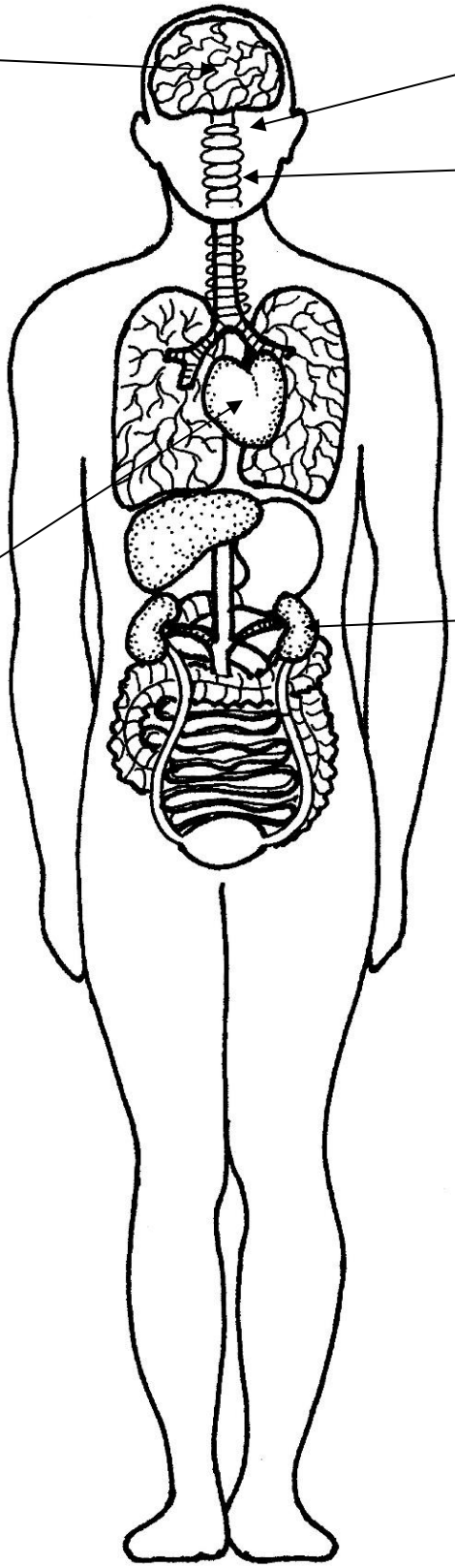
THE EFFECTS OF CATHINONES (BATH SALTS) BODY DIAGRAM

Brain
Paranoia
Hallucinations
Delusions
Panic attacks
Confusion
Psychosis
Extreme agitation
Delirium

Behavior
Aggressive
Violent

Heart & Circulatory
Rapid heart rate
High blood pressure (hypertension)
Heart palpitations
Chest pain

Cancer research is not yet available for NPS drugs.



Eyes
Prolonged dilation of the pupil

Teeth
Grinding

Other Effects
Sweating
Headaches
High body temperature (hyperthermia)
Convulsions
Seizures
Dehydration

Kidney failure

Muscle
breakdown of skeletal muscle tissue

Pregnancy: Can harm a developing baby

DATE RAPE DRUGS

It is important for you to know about date rape and date rape drugs. It is a crime and a sin to both drug someone and to force sex on someone.

Date Rape Drugs

Any type of sexual activity that a person does not agree to participate in willingly is called "date rape." It may come from someone you know, someone you have just met, and/or someone you thought you could trust.

Date rape drugs can make people become physically weak or pass out; this is why people who want to rape someone use them. They leave individuals unable to protect themselves.

Many of these drugs have no color, odor, or taste, and people often do not know that they've taken anything. Many times, people who have been drugged are unable to remember what happened to them. Date rape usually happens to girls or women, but not always. It can also happen to boys or men.

It's important to remember that *all* drugs affect how well your mind and body operate. Alcohol is linked to more date rapes than even other, harder drugs. Nearly all drugs of abuse make people vulnerable to being exploited. Drugs impair a person's judgment, reduce their reaction time, and confuse their thinking. Under the influence of drugs, someone may take that opportunity to push themselves on you.

How can you avoid date rape drugs?

The easiest way to avoid date rape drugs is to stay away from people and places that use alcohol and other drugs. If you do find yourself at a party where people are drinking alcohol, you should be aware that there could be people hoping to make you drunk or vulnerable. No matter what you're drinking, even if it's soda or juice, people can slip drugs into your drink. Pour all drinks yourself and never leave them unattended (even if you have to take them into the bathroom with you).

Also, be sure to stick with your friends. There's safety in numbers.

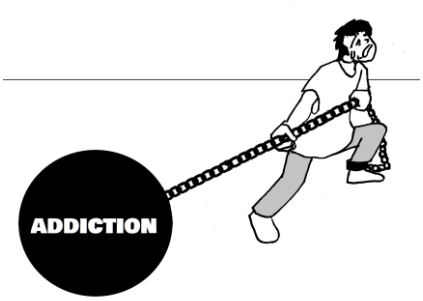
If you are drugged and taken advantage of, it is ***not*** your fault. People who date rape other people are committing a crime.

Adapted from:

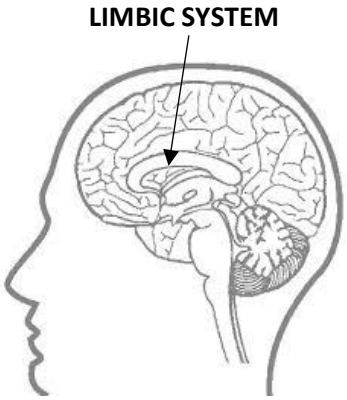
https://teens.drugabuse.gov/blog/post/what-are-date-rape-drugs-and-how-do-you-avoid-them
https://www.womenshealth.gov/a-z-topics/date-rape-drugs

ADDICTION

Addiction and the Limbic System: How a Person Becomes Addicted



The limbic system is the "reward circuit," also known as the "pleasure-motivation system." This is the place in your brain that you feel pleasure and remember your emotions and enjoyable rewards. These memories motivate you to repeat enjoyable behaviors and they become habits. This part of your brain is affected if you use alcohol and other drugs.



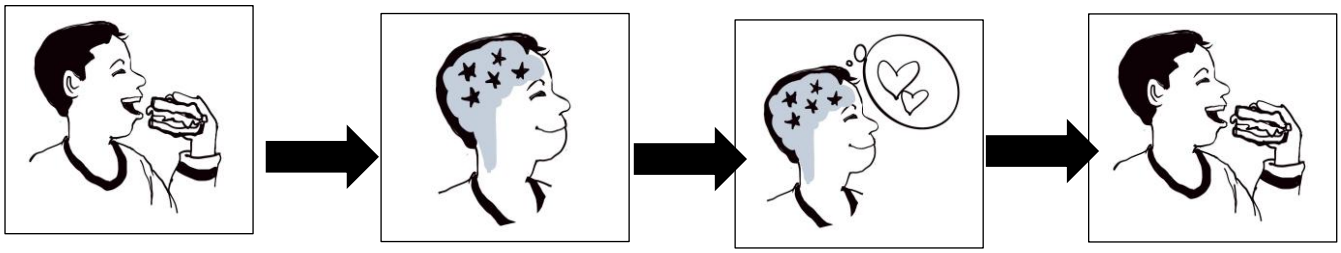
Dopamine is a type of neurotransmitter released into the limbic system of your brain. It is one of the chemical messengers that helps you feel pleasure, satisfaction, and motivation. Your body makes dopamine and your nervous system uses it to send messages between cells.

Simple activities in everyday life can produce small bursts of dopamine in the brain which make you feel happy. Healthy rewards like eating, hearing music, and spending time with friends cause our brains to release dopamine.

Our brains are wired to repeat pleasurable activities. When we are doing healthy activities that we enjoy, our brain floods with dopamine and other chemicals. We feel good, so we want to repeat the activity. The burst of dopamine signals that something important is happening that needs to be remembered. This dopamine signal causes changes in brain connections that makes it easier to repeat the activity again and again without thinking about it. This leads to forming new habits.

Some people like playing the piano, so when they practice, their brain releases dopamine. When they practice, they get better at it. The better they are at it, the more they enjoy it. The more they enjoy it, the more they want to play!

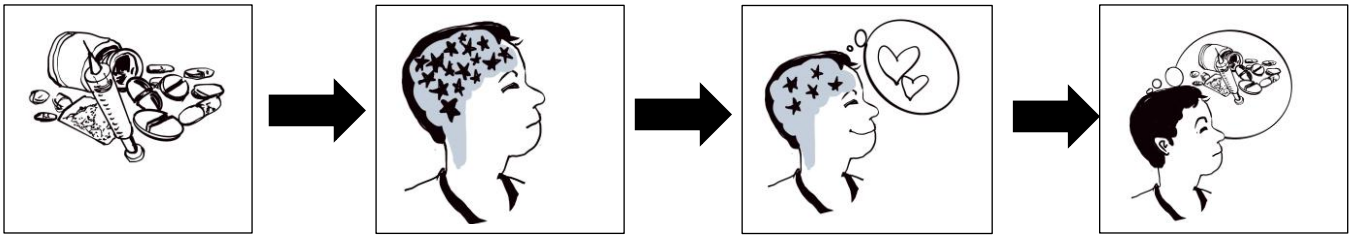
Another example is food. We all enjoy eating good food! When we eat delicious food, our brain releases dopamine. Our amygdala and hippocampus help us feel the good feelings and remember the experience of eating that particular food (including the smell, taste, place we ate it, etc.) Dopamine makes us want or crave more of it. We then have a desire to eat more of that food!



Eat delicious food | Dopamine release | Hippocampus stores the memory | Desire to eat more of that food

This is good when we are experiencing the normal, healthy pleasures in life. It becomes a big problem when we introduce our brain to alcohol and other drugs! Dopamine can cause us to want or crave something even if we don't like it!

Drugs quickly produce much larger amounts of dopamine which create the intense happy feelings, or "high." This powerfully reinforces the connection between taking the drug and the pleasure from the drug. Large amounts of dopamine teach the brain to seek drugs instead of other, healthier goals and activities.



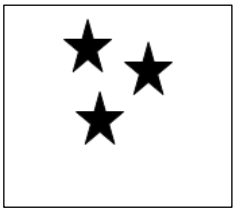
Alcohol/Drug is consumed | Reward circuit floods with dopamine | Hippocampus remembers rapid sense of satisfaction | Desire to consume more of that drug

<u>Alcohol and other drugs increase dopamine</u>

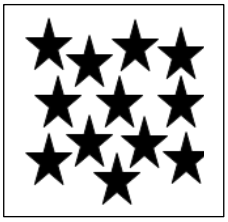
What makes a drug addictive?

Some addictive drugs can release 2 to 10 times the amount of dopamine that natural rewards do, and they do it more quickly and more reliably.

The release of dopamine is <u>fast</u>, <u>intense</u>, and <u>reliable!</u>



Dopamine increases in response to natural rewards such as food.



When drugs are taken, dopamine increases are exaggerated.

Why are drugs more addictive than natural rewards?

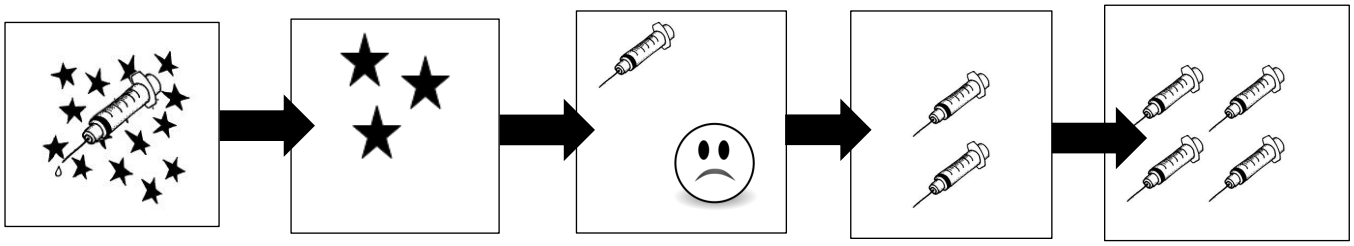
For the brain, the difference between normal rewards and drug rewards can be compared to the difference between someone whispering into your ear and someone shouting into a microphone.

What do you do if the volume on the radio is too loud?

You turn it down! The brain of someone who misuses drugs "turns down" the dopamine by producing less of it. As a result, it is hard for the person to feel pleasure from anything except the drug.

The person will also often need to take larger amounts of the drug to produce the same high as before—an effect known as **tolerance.**

Developing Tolerance:



Repeated overstimulation	Dopamine is reduced.	Original dosage gives less reward.	Dosage has to be increased to achieve original high.	Eventually, large doses are required just to hold off withdrawal.

When someone has a withdrawal from alcohol or another drug, the **amygdala** sends out stressful feelings like anxiety, irritability, and unease. These are the "withdrawal symptoms." These unpleasant feelings make the person seek out the drug again. Soon, more of the drug is required to get the same amount of pleasure. The more alcohol or other drug you use, the more you need. Eventually, a person becomes addicted and uses drugs to get temporary relief from the discomfort they feel rather than to get high or drunk.

This is why a person who misuses drugs can't enjoy normal pleasures anymore. They are bored, anxious, and can't be happy.

The pleasure motivation system (reward circuit) in our brain is connected to our judgment and emotional areas. Drugs make judgement distorted, and the brain is tricked into believing it needs the drug for survival.

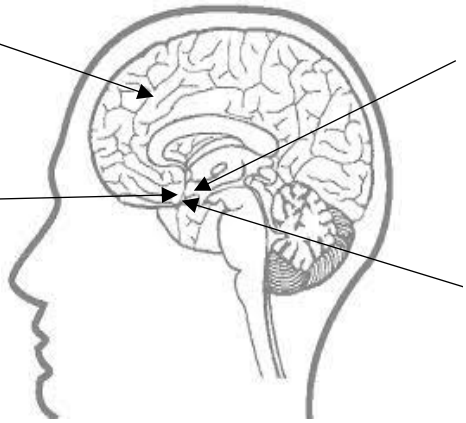
If a person misuses drugs, they no longer have a personal choice. They become addicted and can't stop using the drug.

Addiction is a brain disorder. It is **a malfunction of the pleasure-motivation system** that people cause to themselves by abusing the alcohol or other drugs.

Brain areas involved in addiction

Prefrontal Cortex drives user to seek out the substance.

Nucleus accumbens releases dopamine.



Hippocampus remembers rapid sense of satisfaction.

Amygdala remembers environmental cues (people, places, sights, sounds).

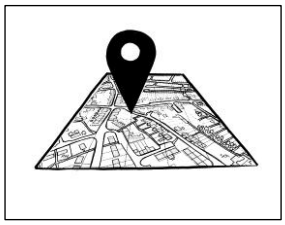
Environmental cues create intense cravings

Cues and triggers

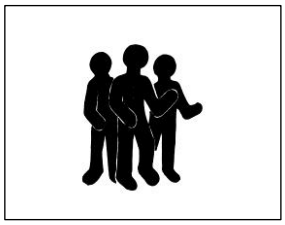
The amygdala and hippocampus remember sights, sounds, and smells in the environment that have become linked with drug use. These become "cues" that remind the person of the drug. These cues can trigger uncontrollable cravings whenever the person is exposed to them, even if the drug itself is not available. These triggers can last a long time, even in people who haven't used drugs in many years. For example, people who have been drug-free for a decade can experience cravings when returning to an old neighborhood or house where they had previously used drugs. The brain will remember!

Recognize and avoid triggers

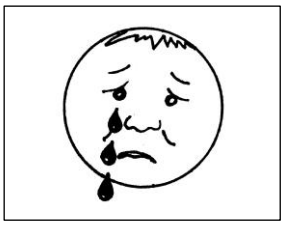
If a person is trying to quit abusing alcohol or other drugs, they need to learn to recognize their triggers and avoid them.



Environmental triggers: places, locations, smells, & sounds



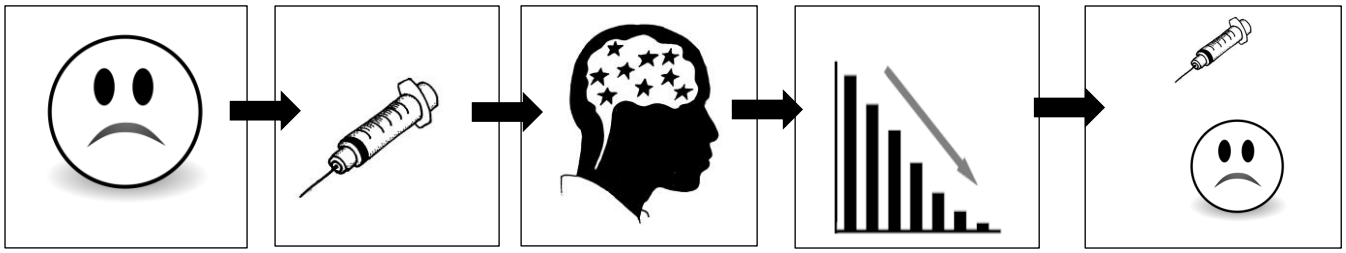
Social triggers: family, friends or others who use



Emotional triggers: depression, stress, exhaustion, frustration, anger, anxiety, loneliness

Triggers cause a downward spiral to more drug use

Giving in to the temptation of a trigger can cause a person to use the drug again. This causes a downward spiral back into drug abuse.



Emotional trigger: I'm depressed

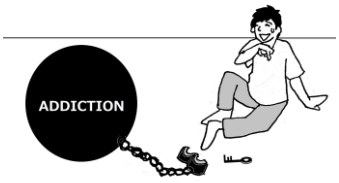
Escape: Drug use

Limbic system floods with dopamine

Over time, dopamine tolerance develops, drug isn't as effective

Less reward= Less pleasure

You can re-wire your brain (neuroplasticity) and break the chains of addiction



In order to prevent relapses, the person needs to rewire their brain to healthy thoughts and activities. They can train their brain to "mind-switch" when the cues and triggers come. This means to focus on something else. Eventually, with repetition, when cravings occur, the brain will switch to the healthier thoughts and activities more easily. Recovery will become more natural, and the brain will experience healthy rewards again.

Habits effect our health both for good and bad. We can learn how to break the harmful routines and replace them with new, healthy routines. This will help us change our lifestyle to be healthier.

When you avoid the triggers and seek to rewire your brain to pursue healthy pleasures, new healthy neural pathways are strengthened and new healthy habits are formed. The more you do this, the easier it becomes.

Set Healthy Goals

- Avoid substances that provide unhealthy rewards (tobacco, alcohol, and other drugs).
- Recognize your personal cues and triggers (people and places that would tempt you to use).
- Make conscious decisions to avoid your triggers and to refuse to give in to temptation.
- Learn to live a comfortable and responsible life in which your brain is rewarded by healthy activities.
- Seek pleasure and reward from healthy pursuits, which create new neural pathways.
- Repetition strengthens the new healthy pathways— the more you make healthy choices, the easier it becomes and new healthy habits are formed.
- Seek support from family and peers.
- Take care of yourself— don't get too tired, too hungry, too lonely, or too angry!
- Exercise and eat healthy. Try prayer and Scripture meditation.

Additional resources:

Freedom Ascent is a good resource for addiction recovery. This is not a curriculum, but the program has a facilitator's guide that provides the facilitator with what is needed to prepare for each Freedom Ascent meeting.

For more information in English: https://www.freedomascent.org/
Spanish: https://www.freedomascent.org/revive

Dates for online experiences can be found at: https://www.storyweaversglobal.org/events

For more information on drugs and the brain, order NIDA's *Teaching Addiction Science* series or the *Mind Matters* series at www.drugabuse.gov/parent-teacher.html. These items and others are available to the public free of charge.

Information from this addiction handout adapted from the following sources:
https://inside-the-brain.com/2018/07/29/rewiring-the-brain-teaching-an-old-dog-new-tricks/ (informative infogram)
https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/drugs-brain

A BIBLICAL VIEW OF DRUGS

What does the Bible say about using tobacco, alcohol, and other drugs?

1 Corinthians 6:19-20—*Do you not know that your body is a temple of the Holy Spirit, who is in you, whom you have received from God? You are not your own; You were bought at a price, therefore honor God with your body.*

Our body is not our own. We are a temple of the Holy Spirit. We can honor God when we stay away from things that hurt our bodies, both physically and spiritually. Tobacco, alcohol, and other drugs will definitely hurt our bodies.

Learning about the potential dangers of alcohol and other drugs help us understand why the Bible warns us not to get drunk or hurt our body in other ways.

Proverbs 20:1—*Wine is a mocker and beer a brawler, whoever is led astray by them is not wise.*

Why do you think the Bible compares alcohol to a mocker and a brawler?

When people drink too much alcohol, they don't think clearly and they say things they wouldn't normally say and do things they wouldn't normally do. Some people get violent when they drink too much, fight, and hurt other people—even people they love.

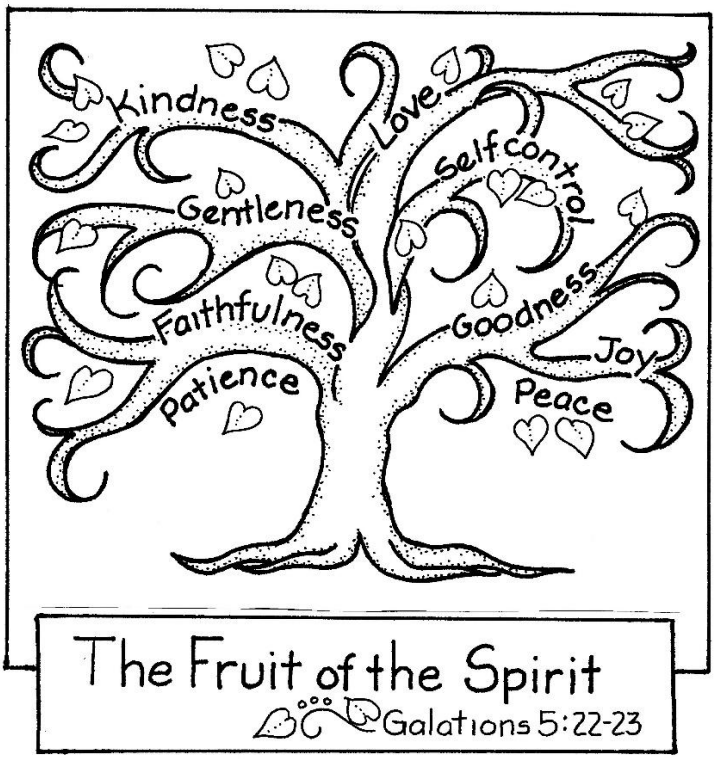
God wants us to be filled with the Holy Spirit instead of alcohol…

Ephesians 5:18—*Do not get drunk on wine, which leads to debauchery. Instead, be filled with the Spirit.*

Galatians 5:22-23—*But the fruit of the Spirit is love, joy, peace patience, kindness, goodness, faithfulness, gentleness and self-control…*

Why does God want us to be filled with His Spirit instead of alcohol?

The effects of alcohol are temporary—they don't last, and they aren't healthy. The pleasure you feel wears off. Your problems are only forgotten for a brief period of time. The effects of alcohol and other drugs on our bodies, brains, and behavior lead us to do things that aren't good for us and ruin our relationships. Much sadness and heartache are caused by the abuse of alcohol and other drugs.



The Fruit of the Spirit has the opposite effect on our lives! All of the effects are good. The Holy Spirit doesn't "wear off." The Holy Spirit works in our lives for good to help, heal, and build healthy relationships. Being filled with the Spirit is both healthy and lasting.

The Fruit of the Spirit benefits you and the other people that you are around. It heals, encourages, and helps. Chemical highs are dangerous and temporary.

God cares about you. He made you, loves you, and knows what's best for you. He wants you to live an abundant life—a life full of joy and strength in spirit, mind, and body. If God cautions us about something in the Bible, He has a good reason for it.

John 10:10—*The thief comes only to steal and kill and destroy; I have come that they may have life, and have it to the full.*

Think about all of the negative consequences to using drugs. Drugs damage our bodies and minds. Drugs destroy relationships. Drugs are like a thief that steals away the good life that God has planned for you.

REFUSAL SKILLS

It can be hard to say "no" when you are pressured by friends to do something that you don't want to do or that you know is harmful. Practice using refusal skills to help you to say "no" in a nice, but firm, way and still keep your friends. You'll be glad you did.

1. Stop: Ask questions.
That means be careful. Never say "yes" before asking questions. Then you'll know if the person has good or bad activities in mind.

2. Name it: Name the behavior and think about what could happen.
The moment someone suggests something that could get you into trouble, hurt someone, damage property, or make your parents angry—name the behavior. For example, "That's vandalism." Or, "That's illegal. I could be arrested."

3. Say, "No."

4. Look for something else to do and change the plan.
Immediately suggest a better idea. Think of something that will interest your friend and won't get either of you into trouble. Make a list of fun things you could suggest so you're prepared.

5. See you later.
If your friend insists on doing the wrong thing, act confident and say, "I'm not into that. See you later." Then, walk away.

6. Call me if you change your mind.
Add, "Give me a call if you change your mind." That encourages your friend to change his/her mind, which often happens, and leaves the door of friendship open.

<u>If you have trouble saying "no"</u>

PRAY! Ask God to help you be strong.

Isaiah 41:10—*Fear not, for I am with you; be not dismayed, for I am your God; I will strengthen you, I will help you, I will uphold you with my righteous right hand.*

RISK and PROTECTIVE FACTORS FOR DRUG USE

What puts children at risk for drug use?

Society/Community Risk Factors

- Alcohol, tobacco, and drugs are easily available
- It is socially acceptable to use drugs
- Laws are not enforced consistently
- There are not good jobs or healthy activities available (extracurricular activities)
- The community lacks clear expectations of academics and acceptable behavior
- High numbers of students don't attend school or fail academically

Peer Risk Factors

- A child is rejected by their peers
- A child doesn't have friends
- A child's friends are using drugs

➢ **Peers/other people are one of the main reasons children choose to drink alcohol or use other drugs.**

Family Risk Factors

- Family history of substance abuse
- Family tolerates drug use
- Poor family management (lack of consistent discipline, lack of communication, etc.)

Individual Risk Factors

- Consistent problem behavior from young childhood
- Withdrawal from peers
- Rebellious
- Academic failure (not based on ability)

What protects children from drug use?

Society/Community Protective Factors

- Access to drugs is limited.
- Laws against drugs are enforced.
- Housing, healthcare, childcare, jobs, and recreation are available.
- Concerned adults, relatives, or neighbors (who provide support, comfort, and counsel in times of transition and crisis) are involved in children's lives.
- The community has high academic and behavioral expectations for children.
- Schools are responsive to student's needs.

Peer Protective Factors

- Child is involved in substance-free activities (sports, music, church, etc.).
- Child's friends disapprove of drugs.

Family Protective Factors

- Close family relationships (parent/child attachment, bonding, love)
- Consistent, predictable parenting
- Parental monitoring and discipline
- Parent's communication of values and expectations, including avoiding high-risk behaviors
- Children given chance to be helpful, includes assigned chores and responsibilities
- Family (or other important adult) has religious beliefs that provide a sense of meaning for the child's life

➢ **Family factors outweigh risk factors (spends time together as a family, children feel valued by parents, parents are interested in children).**

Individual Protective Factors

- **Family bonding**
- **Relationships:** ability to be a friend, ability to form positive relationships, caring and empathetic
- **Self-worth:** feelings of self-worth, self-confidence in ability to succeed
- **Service:** gives of self in service to others and/or a cause
- **Life skills:** uses life skills, including problem-solving, assertiveness, and self-control
- **School bonding:** interest/connection to learning
- **Independence:** avoids unhealthy people and situations, peer refusal skills
- **Healthy decision-making skills**
- **Positive view of personal future:** optimistic; has direction, mission, and purpose in life
- **Spirituality:** personal faith in God
- **Perseverance:** keeps on despite difficulty, doesn't give up

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For more information on drugs and the brain, order NIDA's *Teaching Addiction Science* series or the *Mind Matters* series at www.drugabuse.gov/parent-teacher.html. These items and others are available to the public free of charge.

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