

Chapter 17

Preventing Drug Abuse

Section 1

Legal and Illegal Drugs

- **Technology & Health**
The Brain on Drugs

Section 2

Factors Affecting Drug Abuse

Building Health Skills

- **Advocacy** Intervening to
Help a Friend

Section 3

Commonly Abused Drugs

Section 4

Choosing to Be Drug Free

- **Hands-On Activity** Resisting
Peer Pressure

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EDUCATION

TEENS Talk

CLASSROOM VIDEO #17

The Risks of Drug Abuse

Preview Activity

What Do Different Generations Say?

Complete this activity before you watch the video.

1. Survey ten teens in your community, asking them which three drugs they think are abused by teens the most. Then ask what they think the greatest risk of teen drug abuse is.
2. Ask the same survey questions to ten adults in your community.
3. How were the perceptions of teens and adults alike? How were they different? Summarize the results of your survey. **WRITING**

Section 1

Legal and Illegal Drugs

Objectives

- ▶ **Define** drug abuse and distinguish it from both appropriate use and misuse.
- ▶ **Describe** how psychoactive drugs affect the brain.
- ▶ **Summarize** the risks of drug abuse.

Vocabulary

- medicine
- over-the-counter drug
- prescription drug
- illegal drug
- drug misuse
- drug abuse
- psychoactive drug
- side effect
- drug antagonism
- drug synergism

Warm-Up

Myth Medicines from a drugstore can't harm you.

Fact Medicines can be just as dangerous as "street drugs" if they are used inappropriately.

WRITING What other myths do teens believe about drugs? Write down some statements you have heard from your peers. Which ones do you think are true? Which are false?



Facts About Drug Use

Drug use is part of life in the United States. Every year, doctors write countless prescriptions and consumers spend millions of dollars on non-prescription (over-the-counter) drugs. When taken as directed, prescription and nonprescription drugs treat many illnesses effectively. However, if drugs are not used as directed, serious health problems can result.

Recall from Chapter 15 that a drug is any chemical substance that is taken to cause changes in a person's body or behavior. **Medicines** are legal drugs that help the body fight injury, illness, or disease. Medicines can be classified into two groups: over-the-counter drugs and prescription drugs.

Over-the-Counter Drugs A medicine that is sold legally in pharmacies and other stores without a doctor's prescription is called an **over-the-counter drug**. Some examples are pain relievers such as aspirin, cold and cough remedies, and some sleep aids. Any over-the-counter drug can cause harm if the instructions on the label are not followed.

Connect to YOUR LIFE

Which over-the-counter drugs have you used? Did you read the labels?

Prescription Drugs A drug that can be obtained only with a written order from a doctor and can be purchased only at a pharmacy is known as a **prescription drug**. Prescription drugs require more government control than over-the-counter drugs because of their potential for harm. A doctor determines the correct amount of the medication that the individual patient needs at the time the prescription is written.

Illegal Drugs An **illegal drug** is a chemical substance that people of any age may not lawfully manufacture, possess, buy, or sell. Illegal drugs are also called street drugs.

Drug Misuse The improper use of medicines—either prescription or over-the-counter drugs—is called **drug misuse**. Examples of drug misuse include taking more than the prescribed amount of a drug, taking drugs with the wrong foods or at the wrong time of day, and not taking a drug for the correct period of time. Drug misuse is often by mistake or because of a patient’s misunderstanding of a doctor’s orders.

Drug Abuse When a drug is intentionally used improperly or unsafely, it is known as **drug abuse**. For example, a person is abusing prescription painkillers or over-the-counter cough medicines if he or she takes them to cause a “high,” rather than to treat pain or a cough. And *any* use of illegal drugs is drug abuse. **Drug abuse occurs when people intentionally use any kind of drugs for nonmedical purposes.**

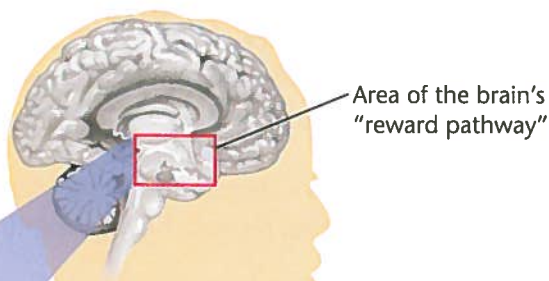


FIGURE 1 Even legal drugs, such as cough syrup, can be misused or abused.

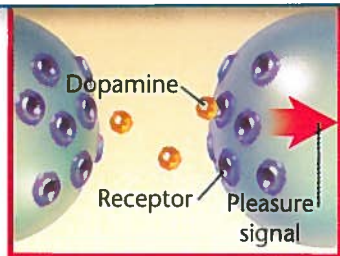
How Drugs Affect the Brain

FIGURE 2 Drug users may eventually have trouble enjoying normal activities because they have harmed the brain's ability to feel pleasure.

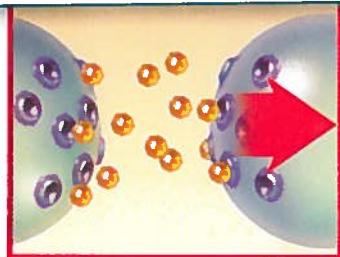
Interpreting Diagrams How do brain cells change after repeated drug use?



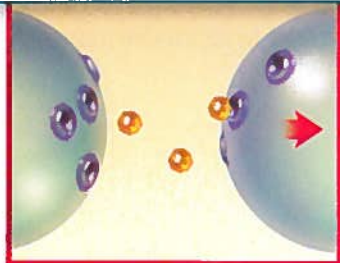
1 Under Normal Conditions
The chemical dopamine travels between brain cells, producing pleasurable sensations.



2 On Drugs
Cells release extra dopamine, causing a stronger signal.



3 After Repeated Drug Use
Brain cells lose receptors for dopamine, becoming less able to process the chemical. The pleasure signal weakens.



Drug Abuse and the Brain

You have probably heard the phrase “mood-altering” used to refer to some drugs. A mood-altering drug, also called a **psychoactive drug** (sy koh AK tiv), is a chemical that affects brain activity. Most abused drugs are psychoactive. You will learn about commonly abused psychoactive drugs in Section 3.

The “Reward Pathway” Psychoactive drugs typically create a pleasurable feeling that the user wants to repeat. **Many psychoactive drugs trigger activity along a pathway of cells in the brain called the “reward pathway.”**

As shown in Figure 2, brain cells along the activated reward pathway release a chemical called dopamine (DOH puh meen). Dopamine itself is not a dangerous chemical—your brain also releases it when you engage in healthy activities such as eating a delicious dessert or cuddling a puppy. In association with drug abuse, however, dopamine can have dangerous effects.

- ▶ The extra dopamine released during drug use can cause the user to ignore the harmful effects of the drug and want to continue using it.
- ▶ Flooding the reward pathway with dopamine may lead to intense cravings for the drug when it is not available.
- ▶ After a time, drug abuse can dull the brain's reactions to natural levels of dopamine. The user no longer feels pleasure from normal activities.

Addiction Abuse of psychoactive drugs may result in addiction. Recall from Chapter 15 that addiction is the compulsive use of a drug, despite any cost to health, family, or social standing. Addiction is a disease that changes the structure and chemistry of the brain.

Dangers of Drug Misuse and Abuse

Drugs can produce powerful changes in the body. These changes are medically useful when a person uses a drug properly. **But when drugs are misused or abused, many serious health effects can result.**

Side Effects Whereas the immediate effect of a medicine may feel good, unpleasant side effects may follow. A **side effect** is an unwanted physical or mental effect caused by a drug. Side effects can include nausea, dizziness, and drowsiness. Because each person's body is unique, side effects of a particular drug vary from person to person. This is one reason why prescriptions should never be shared.

Medicines have been thoroughly tested to minimize side effects with appropriate use. On the other hand, drugs that are misused or abused often have side effects that can't be predicted and may be severe or even life threatening.

Connect to YOUR LIFE What would you say to a friend who offers you her prescription medicine when you are sick? Why?

Tolerance and Dependence When a person uses a drug repeatedly, the body may develop tolerance to the drug. Recall from Chapter 15 that as tolerance grows, the user needs increasingly larger amounts of the drug to achieve the original effect. Tolerance may lead to drug dependence—the body develops a chemical need for the drug and can't function normally without it.

Withdrawal If a person who is dependent on a psychoactive drug stops taking the drug, that person will experience withdrawal symptoms. These symptoms are the body's reaction to not having the drug. Withdrawal symptoms range from mild to life threatening, depending on the drug that was used. Withdrawal symptoms include

- ▶ Nausea or vomiting
- ▶ Headaches or dizziness
- ▶ Fever
- ▶ Digestion problems
- ▶ Paranoia or panic
- ▶ Tremors, seizures, or death

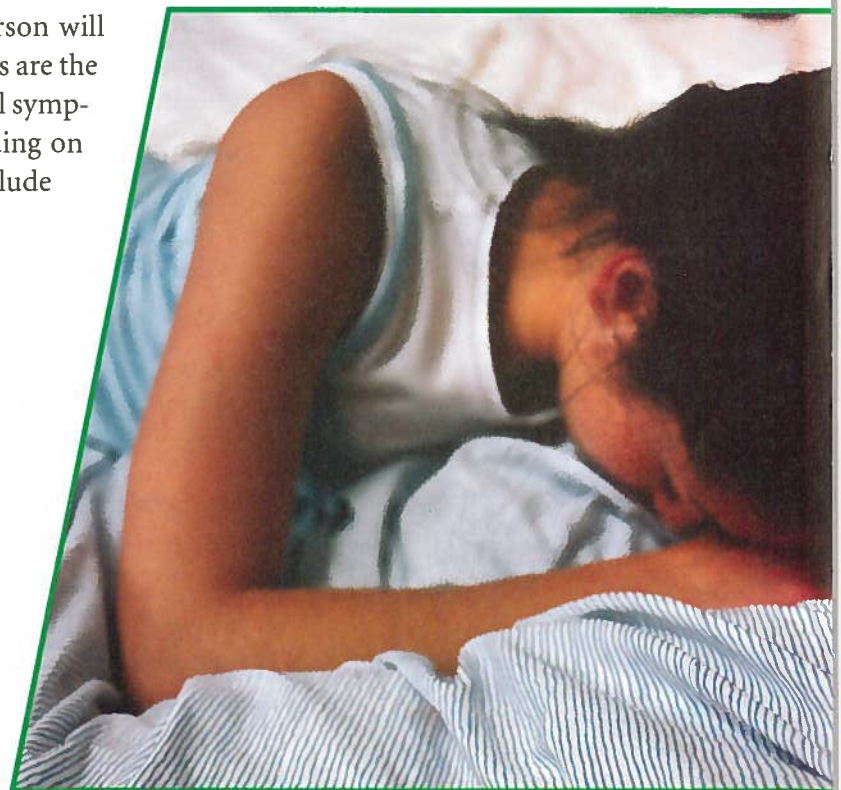


FIGURE 3 Withdrawal symptoms range from mild to severe.



WARNING:
Do not use if you are now taking blood pressure medication, or for two weeks after stopping that medication.

FIGURE 4 It is important to read prescription and over-the-counter drug labels to avoid dangerous drug interactions.

Drug Interactions When a person takes more than one drug at a time, the drugs may interact. The result of this interaction is effects not seen when the drugs are taken alone.

- ▶ **Antagonism** A **drug antagonism** (an TAG uh niz um) occurs when each drug's effect is canceled out or reduced by the other. Neither drug has the predicted effect. For example, because nicotine causes blood pressure to rise, it can cancel out the beneficial effect of medications taken to lower high blood pressure.
- ▶ **Synergism** A **drug synergism** (SIN ur jiz um) occurs when drugs interact to produce effects greater than those that each drug would produce alone. For example, the combination of certain sleep medications with small amounts of alcohol may cause rapid loss of consciousness.

Connect to YOUR LIFE When taking medicines, what precautions can you follow to prevent drug interactions?

Impurities The manufacture of illegal drugs is not regulated by law. Thus, there is no guarantee that they are pure. Many illegal drugs are contaminated with chemicals that may themselves be harmful or cause dangerous drug interactions. For example, a drug dealer may “cut,” or dilute, heroin by adding cleansing powders or rat poison. Illegal drugs may also vary widely from batch to batch in the concentration of psychoactive chemicals they contain. Thus, the user can't easily predict what effect the drug will have each time.

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Other Health Risks There are other serious health risks associated with drug abuse.

- ▶ **Hepatitis and HIV** If drug users share needles to inject drugs, contaminated blood left in the needle can carry disease-causing viruses from user to user. The viruses that cause hepatitis B and C can lead to serious, sometimes fatal, liver disease. The human immunodeficiency virus (HIV) causes AIDS, a disease that has no cure.
- ▶ **Risks to Fetus and Newborn** Drug abuse by a pregnant woman places her baby at risk for a broad range of developmental problems. This is because the drugs cross the placenta, the membrane separating the baby's blood from the mother's blood. The baby may even be born with a drug dependency. For example, "crack babies" are born dependent on the crack cocaine their mothers took during pregnancy. Drugs can also pass through a mother's breast milk to a nursing newborn and cause harm.

Legal Risks and Other Costs

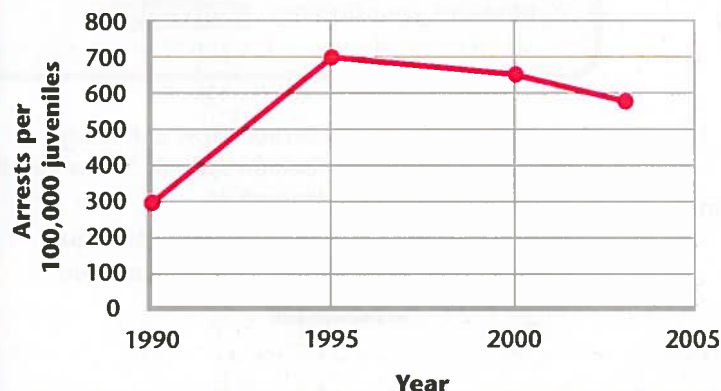
In addition to health risks, people who abuse drugs face other risks. **Drug abusers risk facing serious legal penalties, damaging their relationships with family and friends, and causing significant costs to society.**

Legal Risks Penalties for individuals who produce, possess, transport, or sell illegal drugs include long prison terms and heavy fines. Sometimes the punishment for a drug-related crime is less severe. But the person will still have a criminal record. This record makes it difficult to get a job or to be admitted into schools and the military. In addition, many drug abusers commit other crimes, such as shoplifting and robbery, to support their drug addiction. The legal penalties for these drug-related crimes include fines and imprisonment.

FIGURE 5 Arrest rates for drug violations by juveniles age 10–17 were higher in 2000 than they were in 1990.

Interpreting Graphs Calculate the percentage change in juvenile drug violations between 1990 and 2000. **MATH**

Juvenile Arrest Rates for Drug Abuse Violations



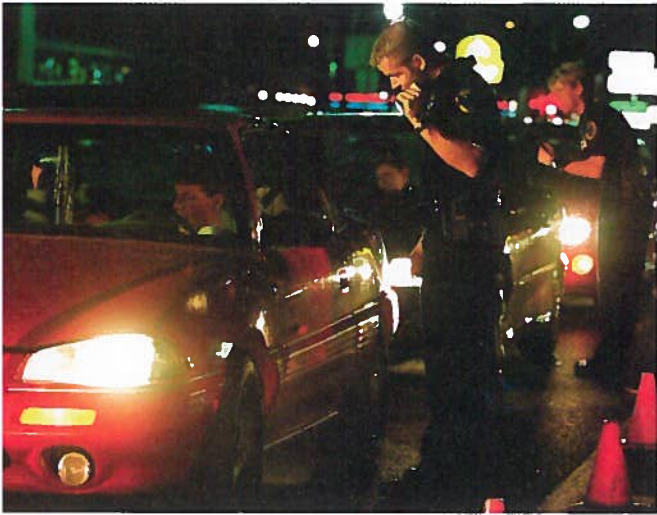


FIGURE 6 Millions of tax dollars are spent each year in an effort to prevent illegal drugs from entering the United States.

Effects on Family and Friends Relationships with family and friends often become strained as the behavior and personality of a drug abuser change. A drug abuser may have unpredictable mood swings, become violent, or withdraw from relationships and responsibilities. The interests and activities that helped bind the person with family and friends may no longer exist. Drugs can cause friends to drift away and families to break up.

Costs to Society The United States government has spent billions of dollars in efforts to stop illegal drug manufacture and sales. Significant financial resources also go toward drug abuse prevention, education, treatment, and rehabilitation programs. These programs provide hope for many drug abusers. However, the demand for such programs often exceeds available funding.

Drug abuse affects many more people than just the abusers themselves. Consider a few of the other costs of drug abuse.

- ▶ The cost of imprisoning thousands of people for drug-related crimes
- ▶ Medical costs for drug-related illnesses and injuries, including many of the nation's cases of HIV/AIDS
- ▶ Premature deaths from drug-related homicides and motor vehicle crashes
- ▶ Lost work productivity because of drug dependency

Section 1 Review

Key Ideas and Vocabulary

1. How is an **over-the-counter drug** different from a **prescription drug**?
2. Define drug abuse. Give an example.
3. Briefly describe how psychoactive drugs affect the brain.
4. What is a **side effect**?
5. List three health risks and two other risks that drug abusers face.

Critical Thinking

6. **Comparing and Contrasting** How is drug abuse different from drug misuse?

Health and Community

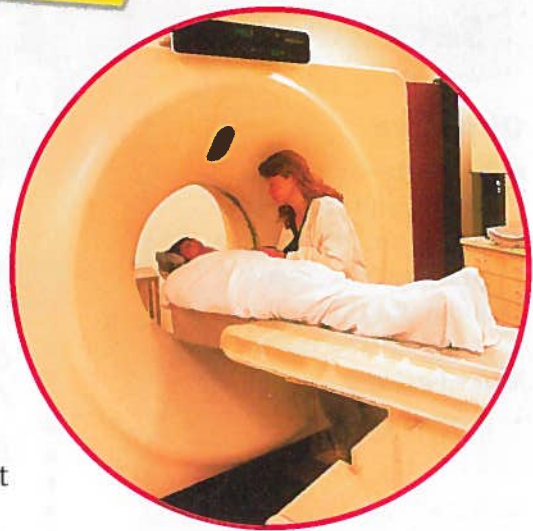
Drug Penalties Find out what some of the penalties are for illegal drug possession in your state. Visit the Web sites of local law enforcement agencies for information. Prepare a chart that summarizes your findings. **WRITING**

7. **Relating Cause and Effect** How can drug dependence affect a person's family? How can it affect a person's community?
8. **Making Judgments** How do you think tax dollars could best be spent to prevent teen drug abuse? **WRITING**

The Brain on Drugs

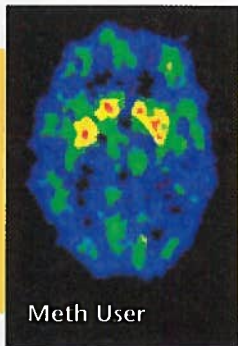
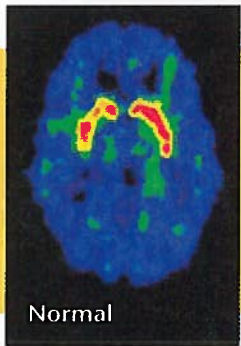
Exactly how do different drugs affect the brain? A brain scanning technique called positron emission tomography (PET) can help scientists answer this question. PET scans measure the brain's ability to process brain chemicals, including dopamine and serotonin. These chemicals are critical to normal experiences of mood, emotion, and pain.

WRITING How might brain scans lead to new ways to treat drug addictions?



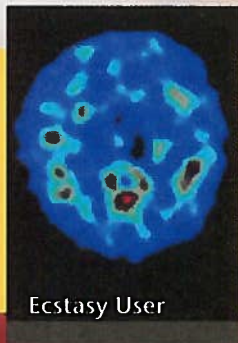
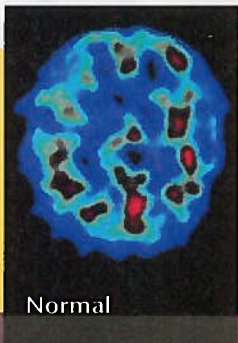
▲ A PET Scanner

The scanner produces images of the brain after specific chemicals in the brain are tagged with radioactive markers.



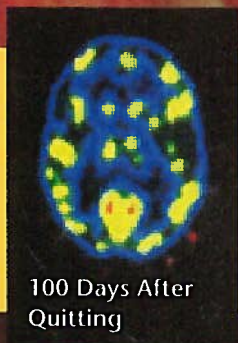
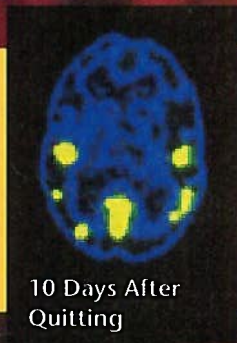
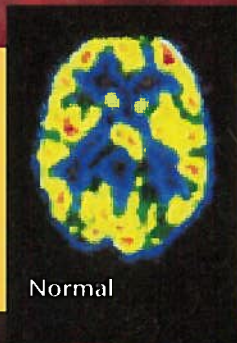
◀ Effects of Meth

Notice the dramatic decrease in dopamine receptor activity (shown in red) compared with a normal brain. With fewer receptors to process dopamine, normal everyday feelings of pleasure are reduced.



◀ Effects of Ecstasy

PET scans of an Ecstasy user show a significant decrease in the brain's ability to process serotonin. This effect makes it more difficult for the user to sleep, learn, and remember.



◀ Recovering from Cocaine Addiction

Even months after quitting cocaine, PET scans show that the brain's return to normal is very slow. Some addicts may never recover completely.

Section 2

Objective

- ▶ **Evaluate** how family, friends, and personal factors can influence an individual's decisions about drugs.

Vocabulary

- protective factor

Factors Affecting Drug Abuse

Warm-Up

Quick Quiz See how many of these questions you can answer “yes” to.

- 1 Do you avoid situations where you think drugs might be used?
- 2 Have you practiced refusing an offer of drugs?
- 3 Are there adults in your life whom you trust and with whom you can talk about your problems?
- 4 Do you manage stress in your life in healthy, constructive ways?

WRITING Each question you answer “yes” to is a way you protect yourself from drug abuse. What other factors in your life help protect you from using drugs? Explain.



Risk Factors

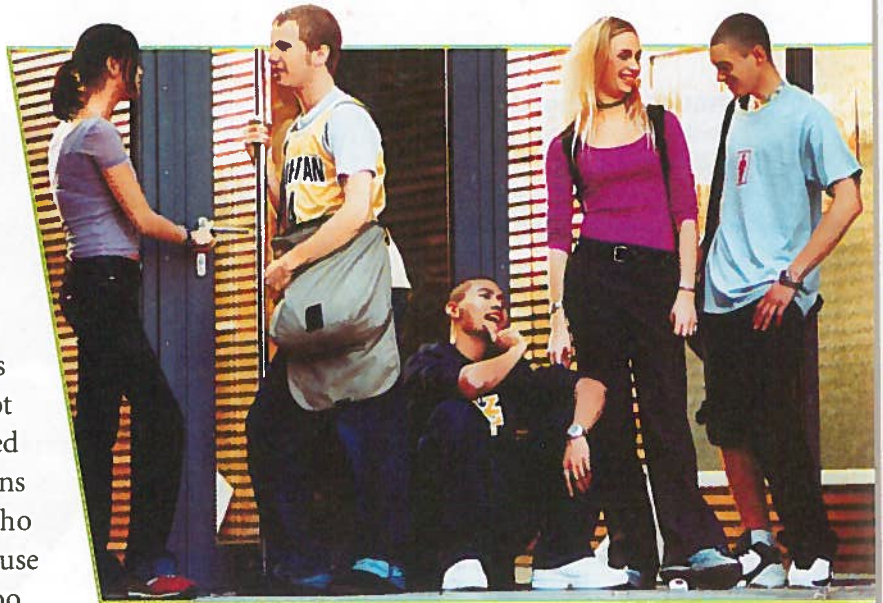
Why do some people abuse drugs? Some people turn to drugs as a way of coping with life's problems and stresses. Others use drugs because their friends do. Still others use drugs because they say they like the feeling of being “high.” But, no matter the reason, the risks related to drug abuse are serious.

A number of factors make it either more or less likely that a teen will abuse drugs. They include family factors, social factors, and personal factors. Often, it is a combination of factors that influences drug use.

Family Factors Consider the following situation.

Since her mom died last year, Julie's dad has withdrawn into his own world. He rarely asks Julie or her brother about their weekend plans. One night, Julie was invited to a “rave” party where everyone seemed to be using drugs. Julie figured her dad would never find out, so she joined in.

FIGURE 7 Are your friends a good influence on you?



One risk factor for teen drug abuse is poor family relationships. When family relationships are not close and supportive, teenagers may not get needed guidance. The teen may feel alienated from the family. This alienation may make teens more vulnerable to the influence of peers who abuse drugs. In addition, if family members abuse drugs, a teen is at higher risk of using drugs, too.

Social Factors Do you know someone like Mike?

Mike has smoked marijuana almost every day for two years. Some of Mike's friends were using the drug and they offered it to him. Now, whenever Mike and his friends hang out, they smoke. Mike says that he can stop using marijuana at any time, although he has yet to try.

In addition to family factors, there are a number of social factors that influence teens to use drugs.

- ▶ **Peer Group** Many teens, like Mike, were first introduced to drugs by friends or by peers whose acceptance they wanted. They may have initially tried drugs because they were curious or felt pressured. Some continue to abuse drugs because they want to be “part of the crowd.”
- ▶ **Role Models** Teens may see their role models—such as favorite actors—using drugs in movie roles or in real life, without seeing the negative effects. Such “glamorization” of drugs may influence their decision to try drugs.
- ▶ **Competitive Pressure** For some teens, a strong desire to excel at athletics may be a risk factor for drug use. For example, some teen athletes believe the myths that painkillers will allow them to play through an injury. Others mistakenly think that steroids will allow them to bulk up safely.

In fact, athletes who use painkillers during competition are more likely to sustain serious injuries that could end their athletic careers. Steroid abuse, especially in the teen years, can lead to lifelong or life-threatening disorders.

**Connect to
YOUR LIFE**

How would you react to news that your favorite professional athlete was abusing drugs?

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For: More on signs of drug dependency
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Web Code: ctd-5172

FIGURE 8 Drugs don't solve problems; they add problems.

"I can't concentrate in class anymore."

"What if my parents found out?"

"I need another hit!"

"What if I get suspended from the team?"



Personal Factors From time to time, all teens experience stress. But not all of them handle it like Keith.

Talia broke up with Keith after they had been going out for two years. Keith kept to himself and pretended the breakup did not bother him. Eventually, Keith began to feel depressed. He had heard that "uppers" improve mood. Soon, he was dependent on uppers and needed them just to get through the day.

There are many causes for stress in a teen's life—for example, a breakup like Keith's, an academic or social problem, or an illness or death in the family. Some teens might turn to drugs in an attempt to temporarily escape the negative feelings associated with stress. But, abusing drugs does nothing to address the underlying causes of stress. In fact, drug abuse ultimately makes life more stressful.

Another personal factor that may influence drug use is low self-esteem. When teens don't feel good about themselves, they are more likely to ignore the serious risks of drug abuse.

Protective Factors

Review the stories involving Julie, Mike, and Keith. Did their stories have to end in drug abuse? No. Even with the risk factors they faced—a distant parent, drug-abusing peers, and personal stress—their decision to use drugs was ultimately their own.

Just because risk factors exist in a teen's life does not mean the teen will abuse drugs. While most teens face at least some risk factors for drug abuse, protective factors can help them overcome those risks. A **protective factor** is a factor that reduces a person's potential for harmful behavior. **Having strong protective factors in your life will help you stay drug free.**

Family Factors Teenagers who have good relationships with their parents and other family members are better equipped to deal with life's problems and stresses. With close, supportive relationships, teens can seek guidance from parents or siblings and discuss the problems they face. Protective family factors include

- ▶ strong and positive family bonds
- ▶ parental awareness of a teen's social activities and peer group
- ▶ clear rules that are consistently enforced

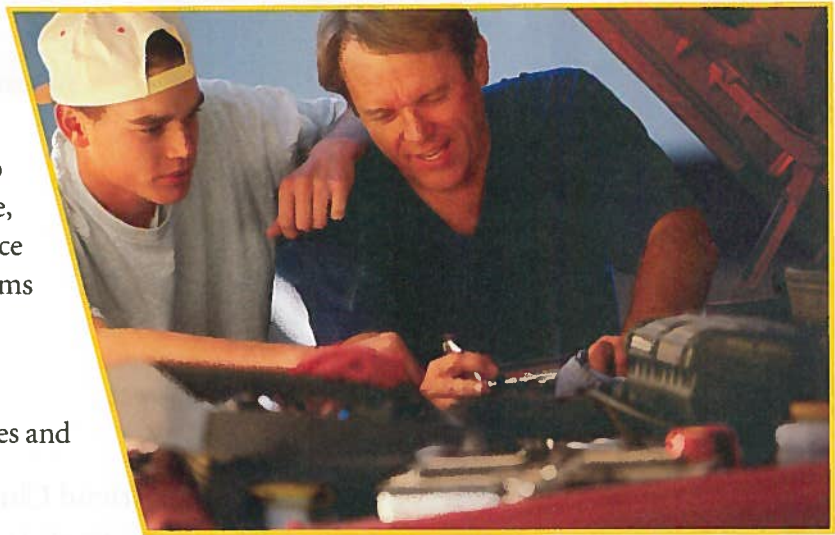


FIGURE 9 Spending quality time with family members can help protect teens from drug abuse.

Social Factors Strong social bonds and supports can cushion the negative effects of stress in your life and act as powerful buffers against drug use. Protective social factors include

- ▶ having strong bonds to school and other community institutions
- ▶ associating with peers who are drug free
- ▶ having friends who are supportive and accepting

Personal Factors Stress and negative feelings are a part of life. With guidance from adult or peer role models, teens can learn healthy techniques for managing stress. Other protective personal factors include

- ▶ a commitment to success in academics and extracurricular activities
- ▶ a personal belief that drug abuse is unacceptable

Section 2 Review

Key Ideas and Vocabulary

1. What three general types of factors can either increase one's risk of drug abuse or protect against drug abuse?
2. What is a protective factor?
3. Why is it important to strengthen protective factors in your life?

Critical Thinking

4. **Applying Concepts** Explain how a teen's family life can either be a risk factor for drug abuse or a protective factor.

Health at Home

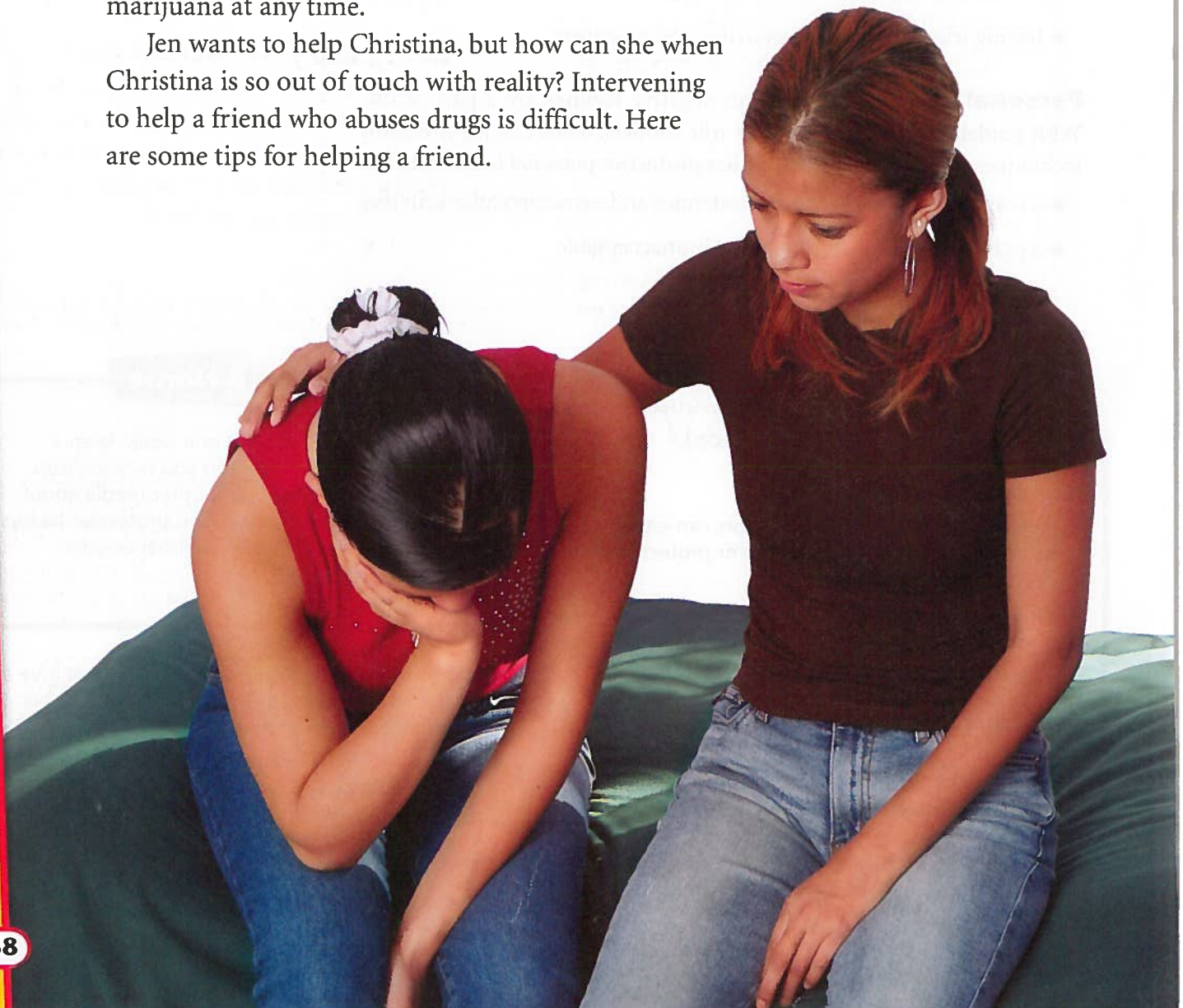
Anti-Drug Messages For one week, keep a record of all the information you receive from television, the Internet, and other media about drug use. What risk factors and protective factors do the media emphasize? Summarize your findings. **WRITING**

5. **Communicating** What advice would you give a friend who is abusing drugs to help him or her cope with negative feelings?
6. **Evaluating** Despite facing many risk factors, a person ultimately can still say "no" to drugs. Do you agree with this statement? Explain.

Intervening to Help a Friend

Jen had been concerned about her friend Christina's marijuana use for some time, but last night was the final straw. Jen and Christina were to meet at a friend's party, but Christina showed up two hours late and was "high." Christina was feeling drowsy and acting uncoordinated, so Jen drove her home. The next day, Christina told Jen that she was perfectly fine at the party and could have driven herself home. Christina also claimed that she could quit smoking marijuana at any time.

Jen wants to help Christina, but how can she when Christina is so out of touch with reality? Intervening to help a friend who abuses drugs is difficult. Here are some tips for helping a friend.



1 Talk to your friend.

Talking to your friend about his or her behavior will not be easy, but it is worthwhile.

- ▶ **Express Your Concern** Tell your friend that you are intervening because you are worried about his or her well-being.

"I was worried something had happened to you when you showed up late."

- ▶ **Help Your Friend Face Facts** Share examples of your friend's destructive behavior as specific evidence of the problem. Describe behaviors accurately and simply, using dates and times when possible.

- ▶ **Describe Your Feelings** Tell how your friend's behavior affects you.

"When you showed up 'high,' it made me feel like you didn't care about my feelings."

- ▶ **Don't Criticize or Argue** Resist the temptation to be judgmental. You are objecting to the behavior, not the person. Do not get drawn into "No-I-didn't, Yes-you-did" arguments. Expect your friend to deny drug dependency or other destructive patterns of behavior. If your friend argues, say "I just want you to know how I feel," and then leave.

- ▶ **Offer Specific Help** Prepare a list of resources that your friend can go to for help. Include names, addresses, and phone numbers. Offer to go with your friend to the school counselor, a social service center, a member of the clergy, a health professional, or other local resource.

"Let's go talk to Mr. Ford together."

2 Ask another friend to help.

The more people speaking the truth and offering support, the better. Be sure to discuss your concerns and guidelines for intervening with the second friend. Work together.

3 Follow through.

Do what you said you would do to help your friend. Be sure your friend knows that your offers of support can be counted on.

4 Seek adult or professional help.

If you think your friend is in a life-threatening or similarly serious situation, find a more experienced person to intervene directly.

5 Recognize your limitations.

Remember, you can only be responsible for yourself. You cannot make another person get help or change behavior. If you have followed these guidelines, then you have done all you can, and you are a good friend.



Practice the Skill

1. Review Jen's situation. Write a dialogue between Jen and Christina following the guidelines presented in Step 1. **WRITING**
2. Under what circumstances do you think Jen should consider asking for adult or professional help for Christina? Explain.
3. Prepare a list of local resources for people facing drug dependency issues. Include addresses and phone numbers, as well as a brief description of the services.

Section 3

Commonly Abused Drugs

Objectives

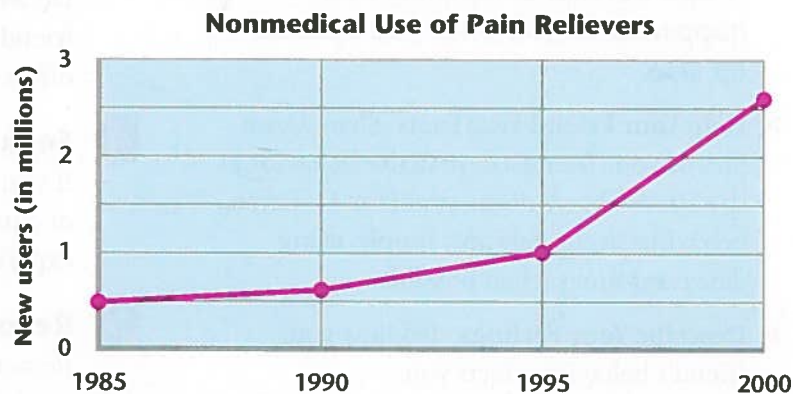
- ▶ **Compare** the effects of depressants, stimulants, and hallucinogens on the body.
- ▶ **Describe** the effects of marijuana.
- ▶ **Name** three classes of drugs of increasing concern in recent years.

Vocabulary

- depressant
- barbiturates
- opiate
- heroin
- stimulant
- amphetamines
- methamphetamine
- cocaine
- hallucinogen
- marijuana
- club drugs
- inhalant

Warm-Up

Health Stats The graph shows the number of new abusers of prescription pain relievers in each year since 1985.



WRITING What factors do you think are responsible for the increase in prescription drug abuse?

Depressants

Drugs are categorized according to their actions and effects on the body. A psychoactive drug that slows brain and body reactions is called a **depressant**. Figure 10 lists some commonly abused depressants and their effects. **Depressants slow body functions by decreasing heart and breathing rates and lowering blood pressure.**

Barbiturates One class of depressants is the **barbiturates** (bah-ri-bay-tur-ayts)—also called sedative-hypnotics. In small doses, barbiturates are sedatives—they relax a person. In high doses, barbiturates are hypnotics—they induce sleep. Today, physicians rarely prescribe barbiturates for sleep problems because barbiturates are dangerous and they have a high potential for abuse.

A barbiturate abuser develops tolerance to the drug quickly. As tolerance increases, the abuser becomes dependent. Barbiturate abusers walk slowly, slur their speech, and react more slowly to their environment. Withdrawal from barbiturates can be fatal.

CNS Depressants A CNS depressant is a sedative that slows the activity of the central nervous system (CNS). This class of drugs used to be called tranquilizers. CNS depressants slow nerve activity, relax muscle tension, lower alertness, and cause drowsiness. CNS depressants have generally replaced barbiturates for medical uses. Doctors may prescribe CNS depressants to treat anxiety, sleep disorders, muscle spasms, and convulsions. However, as with barbiturates, abuse of CNS depressants can cause tolerance and dependence.

Opiates An **opiate** (OH pee it) is any drug made from psychoactive compounds contained in the seed pods of poppy plants. Some opiates can also be produced in a laboratory. In small doses, opiates act to dull the senses, relieve pain, and induce sleep. The opiates morphine and codeine, for example, are used in some prescription medications to reduce severe pain. Both morphine and codeine can produce tolerance and lead to dependence.

A growing area of concern is the use of opiate-containing painkillers or cough syrups for a “high.” This kind of abuse usually involves taking a larger dose than is recommended for the intended medical purpose. Abusing opiates in this way can have dangerous or even life-threatening side effects.

Another frequently abused opiate in the United States is **heroin**, an illegal opiate made from morphine in a laboratory. Abusers of heroin appear dazed and disoriented. Heroin is also highly addictive.



▲ Poppy seed pod

FIGURE 10 Depressants have a number of dangerous side effects and long-term health effects when they are abused.

Connect to YOUR LIFE What news about painkiller abuse have you seen in the media?

Depressants

Drug	Side Effects	Long-Term Effects
Barbiturates	Poor coordination, slurred speech, decreased alertness	Sleepiness, irritability, confusion
CNS Depressants	Blurred vision, dizziness, slurred speech, drowsiness, headache, skin rash	Blood and liver disease
Opiates	Nausea, vomiting, decreased alertness, drowsiness, depressed respiration	Constipation, infections associated with injecting
Alcohol	Impaired judgment, decreased alertness, lack of coordination, memory problems, vomiting	Liver damage, brain damage, anxiety and depression, malnutrition, memory loss

Stimulants

A **stimulant** is a drug that speeds up activities of the central nervous system. **Stimulants increase heart rate, blood pressure, breathing rate, and alertness.** Physicians sometimes prescribe certain stimulants to treat sleep disorders and behavioral disorders such as attention-deficit hyperactivity disorder (ADHD). Abusers of stimulants may develop tolerance, some amount of dependence, and strong addiction. Figure 12 lists some commonly abused stimulants and their effects.



▲ Amphetamine powder

Amphetamines One group of powerful stimulants is the **amphetamines** (am FET uh meenz). Amphetamines are prescription drugs that are sometimes sold illegally as “speed” or “uppers.” Amphetamine abuse produces feelings of well-being and high energy. However, the effects wear off quickly and the abuser is often left feeling depressed. The “down” often leads to taking another—and another—dose. The result may be drug dependence.

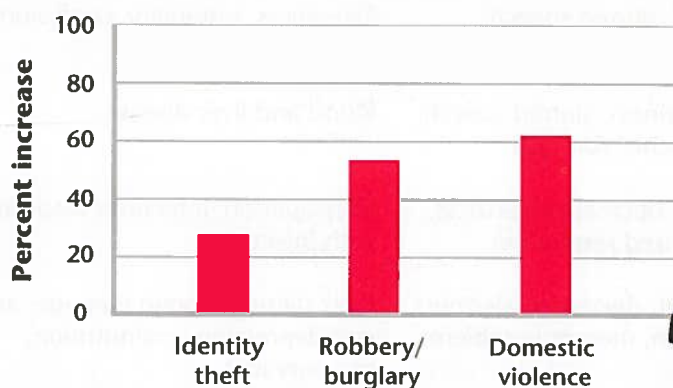
Methamphetamine A stimulant that is related to amphetamines, but is even more powerful, is **methamphetamine**. Abuse of this highly addictive drug, which is sometimes called “meth,” “crank,” “crystal,” or “ice,” is on the rise. The drug is made from relatively inexpensive over-the-counter ingredients in illegal laboratories called “meth labs.”

Methamphetamine initially produces a rush, or “high.” But, after the rush wears off, the user may become confused, shaky, anxious, irritable, or violent. Meth users ultimately become paranoid and psychotic due to brain damage. Meth use may also cause strokes and deadly convulsions.

FIGURE 11 In recent years, crimes linked to methamphetamine have soared. **Reading Graphs** By what percentage did domestic violence crimes linked to meth use increase?

Connect to YOUR LIFE How do you think drug nicknames affect the perceptions teens have of the drugs?

Increase in Crimes Linked to Meth Use



Stimulants

Drug	Side Effects	Long-Term Effects
Amphetamines	Restlessness, rapid speech, blurred vision, dizziness	Hyperactivity, irritability, irregular heart rate, liver damage, paranoia
Methamphetamine	Increased respiration, elevated body temperature, convulsions, stroke	Psychotic behavior, memory loss, aggression, brain damage, heart damage, severe tooth and gum disease, stroke
Cocaine	Sleep disorders, loss of appetite, increased blood pressure and heart rate	Depression, paranoia, irritability, weight loss, irregular heartbeat, seizures, respiratory failure, cardiovascular failure, liver damage
Nicotine/ Tobacco Smoke	Nausea, loss of appetite, headache, increased blood pressure	Hacking cough, difficulty breathing, increased number of colds, heart and lung disease

Cocaine **Cocaine** is a powerful but short-acting stimulant. Cocaine abusers sniff the drug into the nose, smoke it, or inject it directly into their bloodstream.

Cocaine is highly addictive. Tolerance develops rapidly, causing abusers to need larger and larger amounts. When cocaine's effects wear off, abusers often experience depression, which can be severe. An overdose of cocaine, which can be caused by even a small amount, may result in seizures, heart failure, or respiratory failure. A cocaine overdose can be fatal.

A process called "free-basing" changes cocaine into a concentrated, smokable form known as *crack*. Crack is the strongest form of cocaine. The short but powerful effects produced by crack occur within eight seconds after it is smoked.

Hallucinogens

A **hallucinogen** (huh LOO sih nuh jun) is a drug that distorts perception, thought, and mood. **Hallucinogens overload the brain with sensory information, causing a distorted sense of reality.** Hallucinogens are illegal and have no medical use.

Hallucinogens can produce frightening and unpredictable mood swings. Sometimes abusers cannot tell what is real. They may also experience memory loss and personality changes, be unable to perform normal activities, or lose track of time and their surroundings. Tolerance to the mind-altering effects of hallucinogens develops quickly.

FIGURE 12 Stimulants have a number of dangerous side effects and long-term health effects.



▲ Crack cocaine



▲ LSD



▲ Psilocybin

LSD The strongest known hallucinogen is lysergic acid diethylamide, or LSD. LSD is also called “acid.” LSD’s effects are unpredictable—it can either stimulate or depress the central nervous system. Abusers experience hallucinations in which they may see colorful visions and mistakenly feel they have superhuman powers. The drug may also shorten a person’s attention span, causing the mind to wander.

LSD use can lead to frightening episodes known as “bad trips.” Another unpredictable effect of LSD is a “flashback.” A flashback is an unexpected reoccurrence of a bad trip, sometimes years after LSD was taken. Flashbacks can happen at any time without warning.

Psilocybin Another hallucinogen is psilocybin (sil uh sy bin)—sometimes called “shrooms.” Psilocybin is a chemical found in a certain type of mushroom. The mushrooms are eaten raw or mixed with food. The effects of psilocybin are much like those of LSD, but not as strong. Tolerance to psilocybin develops quickly. An added risk of this drug is that a similar-looking, but deadly, mushroom is sometimes mistaken for psilocybin.

PCP One of the most dangerous of all drugs is PCP, short for phencyclidine. PCP was once used as an anesthetic, or painkiller, for large animals. Today, PCP, or “angel dust,” is only available illegally. Abusers may smoke the white powder with tobacco or marijuana, or inject, sniff, or eat it. Because the drug eliminates the sensation of pain, abusers may unintentionally injure or even kill themselves. Some PCP abusers develop signs of schizophrenia, a mental illness. PCP’s effects remain long after drug use ends, and flashbacks may occur.

FIGURE 13 The hallucinogen PCP, a white powder, is sometimes added to marijuana joints.



Marijuana

Marijuana (mar uh WAH nuh) is the leaves, stems, and flowering tops of the hemp plant *Cannabis sativa*. It is also called “pot,” “dope,” “weed,” or “grass.” Marijuana is smoked in a pipe or from a “joint” or “blunt,” or mixed with food and eaten. The hemp plant is also the source of the illegal drug hashish (HASH eesh), or “hash.”



Facts About Marijuana

- May act as a depressant, stimulant, or hallucinogen
- Has lasting negative health effects
- May be deadly if combined with alcohol or another depressant

Effects of Marijuana Marijuana is one of the most frequently abused psychoactive drugs. Its main ingredient changes the way information reaches and is acted upon by the brain. Side effects of marijuana use include

- ▶ distorted perceptions—sights, sounds, time, and touch
- ▶ difficulties with thinking and problem solving
- ▶ loss of motor coordination
- ▶ increased heart rate
- ▶ feelings of anxiety or paranoia

Frequent use of marijuana may permanently affect the brain. Users may damage their short-term memory and lose the motivation to perform at school or work. Smoking marijuana also increases the risk of certain cancers.

Marijuana and Driving Because marijuana can act as a depressant, users often feel sleepy or drowsy. Marijuana use can also make it difficult to judge distances and react quickly to signals and sounds on the road. Driving a car is extremely dangerous when under the influence of marijuana.

A Gateway to Other Drugs You may have heard the phrase “gateway drug” used to describe marijuana. This phrase reflects the fact that marijuana use is often a gateway to using other “harder” drugs, such as cocaine. As marijuana users build up tolerance, they may seek out other drugs to experience the “high” they first got from marijuana. In addition, a marijuana user is likely to be in contact with people who use and sell other illegal drugs. Studies show that almost all young people who use other illegal drugs first used marijuana.

Connect to YOUR LIFE How can refusing marijuana help you stay away from drugs in general?

FIGURE 14 Contrary to what some people may think, marijuana is a dangerous drug.

Go Online
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For: More on commonly abused drugs

Visit: PHSchool.com

Web Code: ctd-5173

Club Drugs

Drug	Classification	Side Effects	Other Facts
Ecstasy (MDMA) <i>Also called XTC, X, Adam, clarity, love drug</i>	Combined stimulant and hallucinogen	Increased heart rate and blood pressure, blurred vision, muscle tension, severe sweating and chills, nausea, increased body temperature that can lead to organ failure	Drugs called "Ecstasy" often contain other substances besides MDMA that make them even more dangerous.
Rohypnol <i>Also called roofies, rophies, forget-me pill</i>	CNS depressant	Decreased blood pressure, drowsiness, dizziness, confusion, memory loss	Associated with "date rapes"; a small dose can impair a user for up to 12 hours.
GHB (Gamma-hydroxybutyrate) <i>Also called grievous bodily harm, G, liquid ecstasy</i>	CNS depressant; also has anabolic (body-building) effects	Drowsiness, nausea, headache, loss of reflexes	Associated with "date rapes"; high doses may result in sleep, coma, or death.
Ketamine <i>Also called K, Vitamin K, cat valium</i>	Hallucinogen	Hallucinations, increased heart rate and blood pressure, impaired motor function, memory loss, numbness, nausea	High doses may cause delirium and fatal respiratory problems.

FIGURE 15 Some of the known effects of club drugs are listed here. **Reading Tables** Which club drugs are CNS depressants?



▲ Ecstasy

Club Drugs, Inhalants, and Steroids

So far, you have learned about the traditional classes of drugs that are commonly abused. **Three classes of drugs that are of growing concern in recent years are club drugs, inhalants, and anabolic steroids.** The effects of club drugs and inhalants are extremely unpredictable and dangerous. The dangers of steroid abuse are less immediate. However, abuse of steroids causes lifelong damage to the body and brain.

Club Drugs Club drugs got their name from the fact that they first gained popularity at dance clubs and raves. They are now more widely available, but their use is still often associated with the club scene. The strength and quality of club drugs are highly unpredictable—their effects are different from person to person and very dangerous. Figure 15 summarizes the dangers of four of the more common club drugs. Other drugs associated with the club scene include methamphetamine and the hallucinogens LSD and PCP.

Some people are unknowing victims of club drugs. For example, rohypnol (roh HYP nawl) can be slipped into someone's drink without his or her knowledge. While under the effects of the drug, the person may be hurt or raped and not even be able to recall the event later on.

The effects of rohypnol are most severe when it is taken with an alcoholic drink. This is because of the synergism of combining two depressant drugs. However, rohypnol can be dangerous in any drink. The best advice for avoiding club drugs is to stay away from places where these drugs are used.

Inhalants A breathable chemical vapor that produces mind-altering effects is called an **inhalant** (in HAYL unt). Some inhalants have appropriate medical uses. For example, nitrous oxide is an anesthetic used by dentists and doctors during surgery. But most inhalants are not meant for human use.

Abusing inhalants—including glue and household cleaners—may produce brief feelings of excitement or giddiness, but the feelings are far from harmless. In fact, they are a sign that the oxygen in the inhaled breath has been replaced with a chemical that has either stimulated the heart or depressed brain function. Even a single session of inhalant abuse can cause death by cardiac arrest or suffocation.

Anabolic Steroids Anabolic steroids are synthetic drugs that are similar to the hormone testosterone. Legal uses of this drug include treating growth disorders and certain types of anemia. But steroids are also abused, primarily by people who want bigger muscles.

You can review the many dangerous side effects of steroid abuse in Chapter 13. Steroid use is especially dangerous for teenagers, whose growing bodies can suffer permanent damage. Unlike other commonly abused drugs, steroids are not considered psychoactive. However, they can have serious long-term effects on a user's brain. Have you ever heard the phrase "roid rage"? Steroids can make a user's personality very aggressive. In addition, some steroid users become severely depressed.

FIGURE 16 Inhalant abuse is extremely dangerous.



Some Dangers of Inhalant Abuse

- Liver and kidney damage
- Loss of bladder control
- Permanent hearing loss
- Brain cell death
- Loss of consciousness, coma, or death

Section 3 Review

Key Ideas and Vocabulary

1. Briefly describe the overall effects that depressants, stimulants, and hallucinogens have on the body.
2. What is an **opiate**? Give three examples.
3. What is **methamphetamine**? List three long-term effects of methamphetamine use.
4. How does marijuana affect the brain? List three side effects.
5. Name three classes of drugs of increasing concern today. In three sentences, summarize the dangers of each.

Health and Community

Steroid Abuse Rules Choose three different sports where steroid abuse is a problem. Find out what rules and testing procedures are applied to professional athletes in these sports. Summarize your findings in a one-page report. **WRITING**

Critical Thinking

6. **Relating Cause and Effect** Explain why prescription depressants or stimulants are dangerous when used for nonmedical purposes.
7. **Comparing and Contrasting** How is methamphetamine different from other amphetamines?

Section 4

Objectives

- ▶ **Identify** three treatment options for people who abuse drugs.
- ▶ **Name** three steps you can take to stay drug free.

Vocabulary

- therapeutic community

Choosing to Be Drug Free

Warm-Up

Dear Advice Line,

My friend Greg tried methamphetamine at a party a few months ago. Soon he started doing it regularly. He gets defensive and aggressive when I ask him if he needs help. I'm scared to talk to him anymore, but I want to help.

WRITING What advice would you give Greg's friend? How can she help Greg?



Treating Drug Abuse

What can you do to help someone who is abusing drugs? Before a person can be helped, the person needs to acknowledge that he or she has a drug problem. The next step would be for the person to explore possible treatment options.

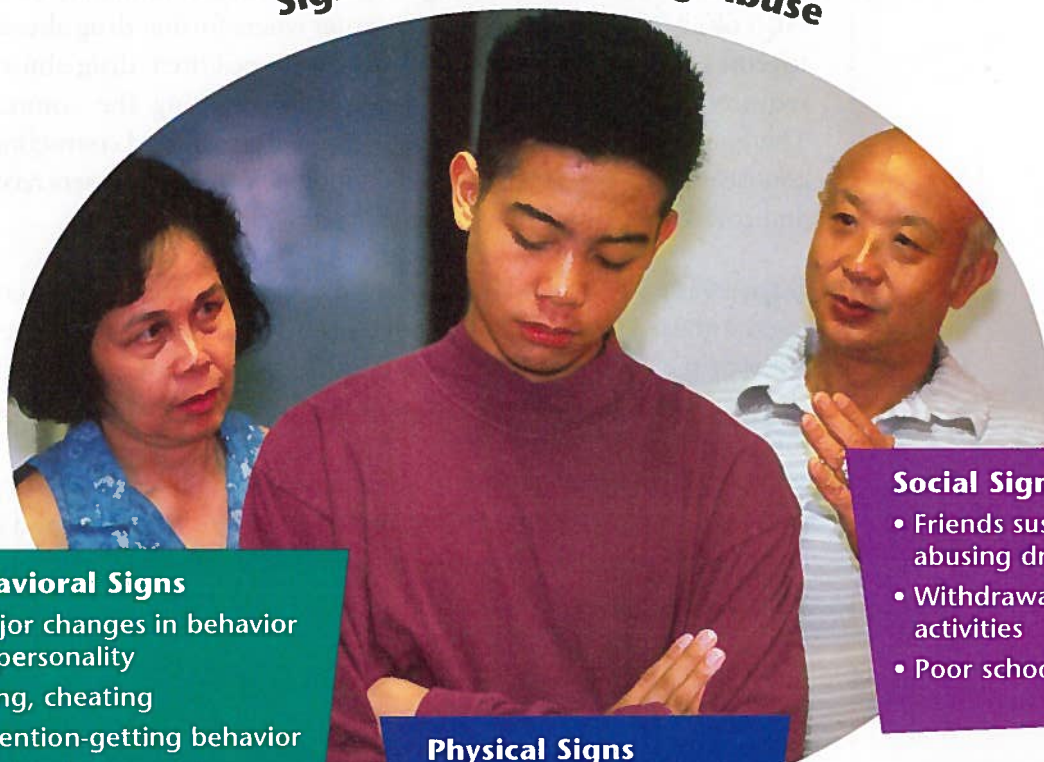
Acknowledge the Problem Before drug abusers can be helped, they need to recognize their problem. Unfortunately, this may be difficult. Many abusers deny their behavior; others deny the underlying problems that led them to drug abuse.

Figure 17 lists some of the signs of drug abuse that you may recognize in yourself or in a friend or classmate. Review the Building Health Skills on pages 438–439 for tips on how to convince a friend that he or she has a drug problem.

Connect to YOUR LIFE

What trusted adult could you turn to for advice about a friend's drug problem?

Signs of Possible Drug Abuse



Behavioral Signs

- Major changes in behavior or personality
- Lying, cheating
- Attention-getting behavior
- Denial of any problems

Physical Signs

- Poor coordination
- Changes in appearance
- Slurred speech

Social Signs

- Friends suspected of abusing drugs
- Withdrawal from normal activities
- Poor school performance

FIGURE 17 Learning to recognize the signs of drug abuse can help you make a difference to a friend or family member.

Explore Treatment Options Once drug abusers recognize their problem, several treatment options are available to them. **Treatment options for drug abusers include detoxification, therapeutic communities, and supervised medication.** Programs also exist for family members trying to understand their loved one's drug problem. Understanding the underlying cause for a loved one's drug abuse and getting involved in the person's treatment can help restore family stability.

Some drug treatment programs are available at little or no cost. Community hospitals, for example, may offer clinics or programs that provide low-cost or volunteer counseling for teenagers and adults. Local schools and governments also schedule parent meetings, peer group counseling, and drug-free programs.

Detoxification A person who enters a detoxification program undergoes gradual but complete withdrawal from the abused drug under medical supervision. Most detoxification programs are in hospitals. Doctors may reduce the drug dosage slowly to avoid painful withdrawal symptoms, or they may supervise the total withdrawal all at once. Detoxification programs include counseling to help people deal with their abuse and cope with the underlying problems.

Go Online
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Therapeutic Community A **therapeutic community** (tehruh PYOO tik) is a residential treatment center where former drug abusers live together and learn to adjust to drug-free lives. Often, drug abusers are required to undergo detoxification before joining the community. Therapeutic communities provide both medical care and counseling. The counseling may involve behavioral therapy to help drug abusers recognize and correct negative behaviors associated with their drug use.

Supervised Medication A third treatment option involves replacing the abused drug with a drug that produces some of the same effects, without the “high.” For example, the drug methadone can help heroin abusers. Small, regular doses of methadone prevent withdrawal symptoms and craving for heroin.

Because methadone and other drug replacements can cause dependency, a trained professional must carefully monitor treatment and slowly lower the dosage. Long-term methadone use causes side effects such as liver damage.

Staying Drug Free

You face decisions every day. You need to decide what to eat, what clothes to wear, and how much to exercise. You may also face decisions about drugs. In Section 2, you learned about protective factors that can help you avoid drugs. There are some additional steps you can take to protect yourself from using drugs. **Practicing refusal skills, seeking help when you need it, and getting involved in drug-free activities can help you stay away from drugs.**

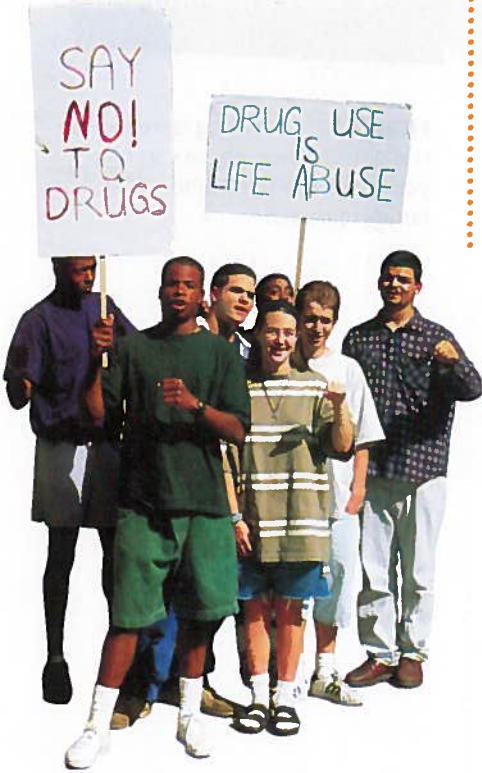


FIGURE 18 Teens in many communities are taking a stand against drugs. The teens at right are part of a program in Florida called “Drug Free Youth in Town.”



Hands-On Activity

Resisting Peer Pressure

Materials

bag of jelly beans
set of five role-playing cards per group

Try This

- 1 Form a group with four other students.
- 2 Your teacher will distribute a different role-playing card to each group member.
- 3 Do not discuss your role with other group members.
- 4 Imagine that you are at a party with friends. Spend five minutes thinking about your assigned role and how you will act during the imagined party.
- 5 At your teacher's signal, begin acting out your role with the other members of your group.

Think and Discuss

- 1 Explain how you felt playing your role during the imagined party.
- 2 How do you think player 4 felt being pressured to eat the jelly beans?
- 3 How might player 3 have felt about eventually giving in?
- 4 How do you think player 1 felt about pressuring all the other players?
- 5 What refusal skills will you use to resist pressure from friends to use drugs?



Refusing Drugs Refusing drugs can be difficult when you are faced with pressure to take them. You can sharpen your refusal skills by reviewing the Building Health Skills in Chapter 15 on pages 378–379. To be effective, be sure to clearly state your personal reasons for not wanting to take drugs. For example, you could say, “No thanks — I want to keep a clear head,” or “I don’t want to become addicted,” or simply, “I don’t do drugs.”

If the person offering you drugs continues to pressure you, take a definite action and remove yourself from the situation. Your action will make it clear that you cannot be persuaded to change your mind.

Seeking Help If you decide that the stresses and problems in your life are too much to manage, find someone to talk to. Many people are willing to help, but you must first let them know that you need help. Parents, teachers, friends, siblings, school counselors, school nurses, and members of the clergy are usually available for guidance and support. A second option is to call a national drug-abuse hotline. Staffers can help you find support in your local community.

Connect to YOUR LIFE

What are your personal reasons for refusing drugs?



FIGURE 19 Participating in a youth choir helps these teens make friends, build self-confidence, and stay drug free.

Alternatives to Drugs Turning to drugs to try to feel good or to deal with problems is a risky choice. Imagine how you would feel if you had to tell lies, hide your physical condition, worry about police, and deal with the drug's side effects. People who become dependent on drugs spend almost all of their time either thinking about drugs, getting the money for drugs, or taking drugs. Drugs end up controlling their lives. By deciding not to use drugs, you can stay in control of your life.

There are many healthy and constructive activities that can lift your mood and help you handle the pressures in your life. In addition, you may make new friends who share your commitment to stay drug free.

- ▶ **Engage in physical activity.** Physical activity boosts your mood and relieves the negative effects of stress. Getting enough exercise and getting involved in sports can help you feel energetic, positive, and self-confident.
- ▶ **Volunteer.** Helping other people can give you a good feeling about yourself, too. Many social service agencies need volunteers. You can read to someone with a visual handicap, visit elderly people in a nursing facility, or teach a hobby or sport to young children.
- ▶ **Join a youth group.** Youth group leaders serve as role models and help you explore your values in a supportive environment. Youth groups often participate in community service projects. Participating in a youth group can give you a sense of belonging and a connection to others.

Section 4 Review

Key Ideas and Vocabulary

1. What are three options for drug abuse treatment?
2. Describe a **therapeutic community**. Identify two ways it helps drug abusers overcome their problems.
3. What are three steps you can take to stay away from drugs?

Critical Thinking

4. **Applying Concepts** What activities do you participate in that keep you away from drugs?

Health at School

Drug Prevention Speech Prepare a 5-minute speech for sixth graders about healthy alternatives to drug use. Use examples that will relate to this age group. Also pay attention to the style of speech that will most appeal to them. Practice your speech with friends and get suggestions for improvements. **WRITING**

5. **Comparing and Contrasting** How are detoxification and medication treatment programs similar? How are they different? **WRITING**

The Risks of Drug Abuse What did you learn from the video about the risks of drug abuse?

Section 1 Legal and Illegal Drugs

Key Ideas

- ✓ Drug abuse occurs when people intentionally use any kind of drugs for nonmedical purposes.
- ✓ Many psychoactive drugs trigger activity along a pathway of neurons in the brain called the “reward pathway.”
- ✓ When drugs are misused or abused, many serious health effects can result.

- ✓ Drug abusers risk facing serious legal penalties, damaging their relationships with family and friends, and causing significant costs to society.

Vocabulary

- medicine (426) • over-the-counter drug (426)
- prescription drug (427) • illegal drug (427)
- drug misuse (427) • drug abuse (427)
- psychoactive drug (428) • side effect (429)
- drug antagonism (430) • drug synergism (430)

Section 2 Factors Affecting Drug Abuse

Key Ideas

- ✓ A number of factors make it either more or less likely that a teen will abuse drugs. They include family factors, social factors, and personal factors.

- ✓ Having strong protective factors in your life will help you stay drug free.

Vocabulary

- protective factor (436)



Section 3 Commonly Abused Drugs

Key Ideas

- ✓ Depressants slow body functions by decreasing heart and breathing rates and lowering blood pressure.
- ✓ Stimulants increase heart rate, blood pressure, breathing rate, and alertness.
- ✓ Hallucinogens overload the brain with sensory information, causing a distorted sense of reality.
- ✓ Marijuana is one of the most frequently abused psychoactive drugs.

- ✓ Three classes of drugs that are of growing concern in recent years are club drugs, inhalants, and anabolic steroids.

Vocabulary

- depressant (440) • barbiturate (440) • opiate (441)
- heroin (441) • stimulant (442) • amphetamines (442)
- methamphetamine (442) • cocaine (443)
- hallucinogen (443) • marijuana (445)
- club drugs (446) • inhalant (447)

Section 4 Choosing to Be Drug Free

Key Ideas

- ✓ Treatment options for drug abusers include detoxification, therapeutic communities, and supervised medication.

- ✓ Practicing refusal skills, seeking help when you need it, and getting involved in drug-free activities can help you stay away from drugs.

Vocabulary

- therapeutic community (450)

Reviewing Key Ideas

Section 1

- Unwanted physical and mental effects caused by a drug are called
 - psychoactive effects.
 - withdrawal symptoms.
 - side effects.
 - tolerance.
- How does drug addiction affect the brain?
- Contrast two kinds of drug interactions.
- How do drugs taken by a pregnant woman reach the fetus?
- Critical Thinking** In what ways are drug abuse and crime linked? Give at least three examples.

Section 2

- Something that reduces a person's potential for harmful behavior is called a
 - risk factor.
 - social factor.
 - protective factor.
 - personal belief.
- Give three examples of social risk factors and three examples of social protective factors for drug use.
- Critical Thinking** Explain why you think good stress management skills are a protective factor against drug use.

Section 3

- Drugs that slow body functions are called
 - depressants.
 - stimulants.
 - hallucinogens.
 - club drugs.
- What is a flashback and with which category of drugs does it occur?
- What are the immediate and long-term effects of smoking marijuana?
- Critical Thinking** Is a drug dangerous only if it is addictive? Explain your position. **WRITING**

Section 4

- The objective of supervised medication in treating drug addicts is to
 - provide a safe "high."
 - prevent withdrawal symptoms and cravings.
 - produce a controlled form of addiction.
 - increase side effects.
- Where can drug treatment programs be found for little or no cost?
- Why does detoxification require close medical supervision?
- List three alternative activities to doing drugs.
- Critical Thinking** Analyze the risks and benefits of a drug replacement such as methadone. When would the benefits outweigh the risks? **WRITING**



Building Health Skills

- Analyzing Influences** Studies show that students who regularly abuse drugs tend to get lower grades in school and are more likely to lie or steal. Why do you think this is true?
- Making Decisions** If you were an editor of a teen magazine, would you print a story about a movie star who overdoses on illegal drugs? Explain your answer. **WRITING**
- Communicating** How might you tell a friend that you suspect he or she is abusing drugs?
- Setting Goals** Pick an area of your life in which you feel you could add a protective factor for drug abuse. Write a goal to work on—for example, "Always let mom know where I'm going." Monitor your progress over the course of the school year.

Health and Community

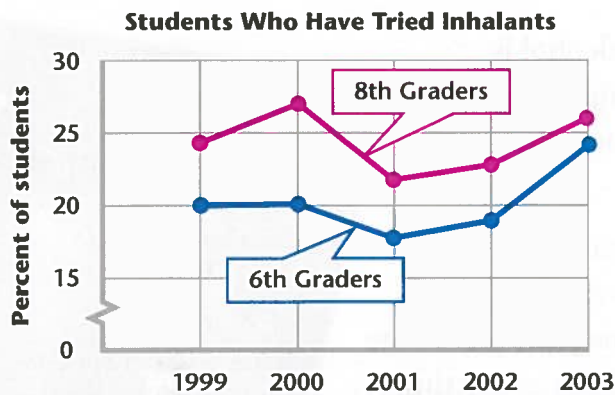
Club Drugs Warning Write a public service announcement that warns people of the dangers of Ecstasy and other club drugs. Consider the audience you want to address. Choose words and images that best reach that audience. **WRITING**



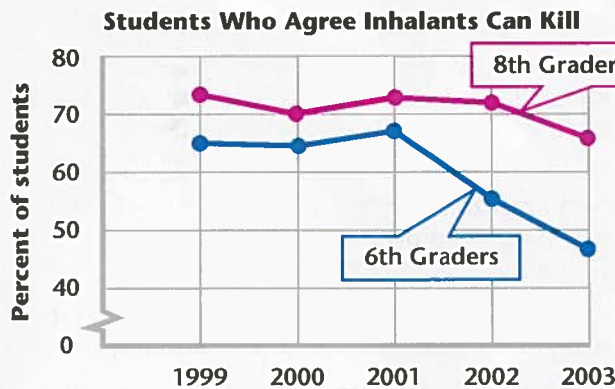
Standardized Test Prep

Math Practice

The graphs below track changes in inhalant use and perceptions of inhalant risk among sixth and eighth graders. Use the graphs to answer Questions 22–24.



22. In what year was inhalant abuse by sixth and eighth graders at its lowest level?
- A 2000 B 2001
C 2002 D 2003



23. In what year did most sixth and eighth graders agree that inhalant use can kill?
- F 2000 G 2001
H 2002 J 2003
24. What phrase best summarizes the general trend shown by the graphs?
- A Inhalant abuse rises as perception of its risk falls.
B More sixth graders agree that inhalants can kill you than do eighth graders.
C Inhalant abuse killed more students in 1999 than in 2003.
D Teaching youth the dangers of inhalant abuse will make them want to try inhalants.

Reading and Writing Practice

Read the passage. Then answer Questions 25–27.

Many rewarding activities of everyday life, such as laughing with friends or winning a game, raise dopamine levels in the brain. Many psychoactive drugs “hijack” this natural process—the drugs synthetically boost dopamine concentration to unnaturally high levels, causing intense euphoria and the desire for more. Consequently, over time, other previously pleasurable activities like hobbies and athletics can lose their appeal. People who are addicted to drugs organize their lives around the drug use because their brains have been tricked into valuing drugs more than anything else.

25. From the context of this passage, what is the best synonym for euphoria?
- A confusion
B aggression
C hallucination
D pleasure
26. According to this passage,
- F drug addiction releases a toxic chemical into the brain.
G drugs are the only way to feel pleasure.
H drug addicts can make a full recovery.
J drugs interfere with a natural process in an unhealthy way.

Constructed Response

27. Addiction has been called a “disease of the brain.” How does this passage support this view? Explain.

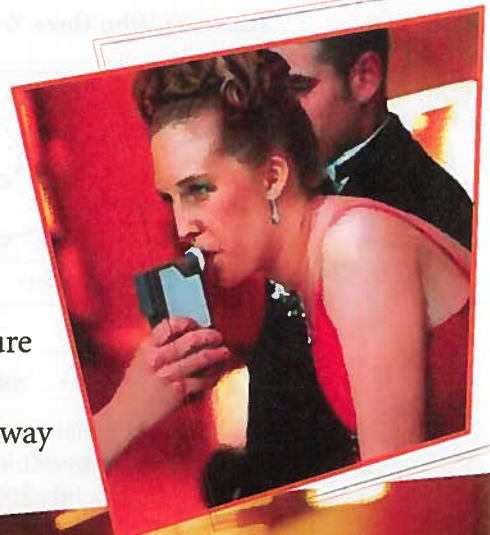
Test-Taking Tip

Plan to study for your test well ahead of time. Avoid “cramming” for a test the night before. Your brain is more likely to retain and synthesize information if you study over a longer period of time.

Should Students Be Tested for Alcohol Use Before School Events?

Even though underage drinking is illegal, alcohol is the most commonly abused drug among high school students. Drinking before school events, such as dances and sporting events, is a growing problem.

Some schools now require students to take a breath-alcohol test before they can enter school events. This gives school administrators an unbiased and consistent procedure for screening all students. Penalties range from contacting parents to suspension. Is a breath-alcohol test an effective way to reduce student drinking?



The Case for Alcohol Testing

School districts that test for alcohol use have seen significant reductions in student drinking before school events. Alcohol testing clearly reinforces the school's "zero tolerance policy" for underage drinking. Testing might not stop every student from drinking. However, a strict testing policy significantly reduces the number of injuries and behavior problems that result from drinking.

“ I think it's a great idea to test everyone. Last year, I worked for months to earn enough money for the prom. That night, a few kids showed up drunk and got rowdy. It was horrible. This year, my school plans to test everyone at the entrance to the prom. Anyone testing positive will have to wait outside with a teacher for their parents to pick them up. I'm sure everyone will have a much better time this year. And I'll feel safer on the roads driving home. ”



The Case Against Alcohol Testing

Alcohol testing may prevent students from drinking before school events, but it doesn't address the core problem. Schools should spend their time and money educating and counseling students about the dangers of underage drinking in general. If students know the facts, they will be able to make smarter decisions.

“ Alcohol-testing policies punish all of us for the actions of a few. Just because some students may make bad decisions, it's not fair to treat all of us like criminals. Testing makes me feel that my privacy is being invaded and that school officials have no trust in us. Who will want to attend a school event knowing that you'll have to wait in a long line? Besides, testing won't stop those who want to drink from doing so. They just won't show up at school events. ”



What do YOU think?

Use these steps to analyze and express your opinion about alcohol testing.

1. Analyze the Issue Carefully consider both sides of the issue. Make a table listing the pros and cons of alcohol testing at school events.

2. Consider Your Values Suppose your friend tested positive and was refused entrance to a school event. How would you feel? How would you react?

3. Take a Stand Write a paragraph expressing your opinion about alcohol testing at school events. Make sure you state your opinion clearly and offer several strong supporting reasons. **WRITING**

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