

sk someone to name the harmful health effects of drug abuse and addiction, and you might get the following very scary list: overdose; cancer; heart disease; lung disease; liver dysfunction; mental disorders; infectious diseases such as HIV/AIDS, hepatitis, and tuberculosis.

All of these are correct. Research shows that drug abuse and addiction can cause or worsen a whole array of health problems. Some can occur when drugs are used in high doses or after prolonged use, and some after just one use.

But you're likely to be more aware of other effects, which may not seem as scary. Or are they? You probably know that drugs affect feelings,

moods, judgment, learning, memory, and movement. What's harmful about these effects?

As it turns out, **impairment** from drug abuse can cause a lot of serious consequences. Impairment refers to diminished ability, such as when drug abuse interferes with thinking or muscle movements. When a person is impaired from drugs, he or she is open to a wide range of errors in judgment and perception, which can lead to making bad choices. Physical abilities also can be affected, so a person might not react as he or she normally would.

The consequences of impairment can be both short-term and long-term, and can impact the most

important things to a person: family, friends, school, possessions, dreams, goals, even life itself.

## **DIMINISHING RETURNS**

Drugs of abuse, such as marijuana, heroin, cocaine, inhalants, nicotine, and alcohol—even some medications when they are not taken according to dosage and directions—can change the way a person's brain functions. This is important for teens to know because the teen brain's frontal cortical regions, which integrate all the various pieces of information that go into making good decisions, will still be developing until around age 25.

Since drugs act on the brain, they can affect a wide range of abilities. These include: **perception** (*what* someone understands or observes), **cognition** (knowledge gained,



as through perception), **judgment** (the ability to make a decision), attention, balance, and coordination.

The consequences of impairment are almost infinite when you think about them. For example, after using drugs, someone might not score well on a test, thus affecting grades, college placement, or obtaining a particular job. Someone might misperceive a situation, respond inappropriately, and cause a regretable argument. Someone could recklessly create serious physical risk by getting behind the wheel of a car. (See the sidebar on "drugged driving.") Or someone might become involved in a dangerous social situation that could lead to a sexually transmitted disease or an unwanted pregnancy.

As Nora D. Volkow, M.D., Director of NIDA, says: "The choices teens make can have profound effects, both immediate and long-term. It is important that teens understand the consequences associated with their decisions—particularly decisions that affect the brain and behavior."

# THE DANGERS OF DRUGGED DRIVING

Believe it or not, "one drink for the road" was once a common phrase in American culture. But due to the efforts of many, including Students Against Destructive Decisions (SADD), the number of people killed or injured in



alcohol-related driving accidents has steadily declined. Now a similar problem, "drugged driving," is getting increased attention.

Evidence shows drugs, often in combination with alcohol, are involved in many automobile accidents. Driving under the influence of a drug can impair one's perception, motor skills, **reaction time** (the time it takes to respond to any stimulus), and judgment. Research shows marijuana to be the most common illegal drug found in both impaired drivers and crash victims. Other drugs, such as prescription drugs, cocaine, opiates, and inhalants, have also been reported.

Drugged driving not only puts drivers and passengers at great risk for injury and death, but also others on the road. Statistics present a very serious teen issue. Motor-vehicle accidents are the *number-one cause of death* among people ages 15–20. Furthermore, NIDA's 2006 Monitoring the Future survey indicates that 10.6 percent of high-school seniors reported driving under the influence of marijuana and 12.4 percent reported driving under the influence of alcohol in the two weeks prior to completing the survey.

For more about drugged driving, visit www.drugabuse.gov/Infofacts/driving.html.

For more about the effects of marijuana and other drugs on the brain, visit www.scholastic.com/headsup.

# **HEADS UP: WHAT DO YOU KNOW?**

Answer the questions below to test yourself on vocabulary and facts you learned in the article "Out of It."

#### **VOCABULARY**

Match the words in Column A to their meanings in Column B.

#### Column A

## 1. impairment

#### 2. perception

- 3. cognition
- 4. judgment
- **5.** reaction time

#### Column B

- A. the time it takes to respond to any stimulus
- B. *what* someone understands or observes
- **C.** diminished ability
- D. knowledge gained, as through perception
- **E.** the ability to make a decision

## **READING COMPREHENSION: Multiple Choice**

Fill in the circle next to the correct answer for the multiplechoice questions below.

- 1. The brain's frontal cortical regions, which are affected by drug abuse, are responsible for what?
  - (A) movement
  - B decision making
  - © reaction time
  - sight
  - E hearing
- 2. Which of the following cannot be listed as a possible effect of drug abuse and addiction?
  - (A) impairment
  - **B** HIV/AIDS
  - © cancer
  - heart disease
  - (E) none of the above

- 3. Among people ages 15–20, what is the number-one cause of death?
  - (A) drug overdose
  - (B) cancer
  - © motor-vehicle accidents
  - impairment
  - plane crashes
- 4. What is the most common illegal drug found in impaired drivers?
  - A marijuana
  - B prescription drugs
  - (C) inhalants
  - ① cocaine
  - (E) opiates

# **BONUS: Think It Through**

The article "Out of It" discusses serious short-term and long-term consequences of drug abuse. When you're faced with a situation that requires you to respond, it's important to make smart choices. Here are some tips:

- When you're faced with a decision, remember two simple words: STOP and THINK.
- Give yourself time to weigh options. A rule of thumb is to wait at least 20 minutes before making any decision. Take more time if needed.
- Identify possible actions and consequences (e.g., "If I do this, this could happen...").
- Identify pros and cons of the situation.
- Consider what other factors could be influencing the decision (e.g., sleep deprivation, health, alcohol, drugs, others' opinions).
- Talk to a trusted friend or an adult for advice.
- Remove yourself as soon as possible from any dangerous situation.

Considering these tips, as well as facts from the article "Out of It," how might you respond to the following situations?



- 1. A driver who has taken a drug prescribed for someone else offers you a ride home.
- 2. You're invited to a party where you've heard people will be taking drugs.
- 3. You're in a car when someone asks if anyone wants to smoke marijuana.