# Marijuana and Teens: Information for Parents

## How common is marijuana use among adolescents?

A recent government survey suggests that Marijuana is the most frequently used illegal drug in the United States. Nearly 98 million Americans over the age of 12 have tried marijuana at least once. Over 14 million had used the drug in the month before the survey.

The Monitoring the Future Survey, which is conducted yearly, includes students from 8th, 10th, and 12th grades. In 2006, the survey found that 15.7 percent of 8th-graders have tried marijuana at least once, and among 10th-graders, 14.2 percent were "current" users (that is, have used within the past month). Among 12th-graders, 42.3 percent have tried marijuana at least once, and about 18 percent were current users.

Research shows that more than 40 percent of teenagers try marijuana before they graduate from high school.

#### Does using marijuana lead to other drugs?

Long-term studies of high school students and their patterns of drug use show that very few young people use other drugs without first trying marijuana, alcohol, or tobacco. Though few young people use cocaine, for example, the risk of doing so is much greater for youth who have tried marijuana than for those who have never tried it. Although research has not fully explained this association, growing evidence suggests a combination of biological, social, and psychological factors is involved.

Researchers are examining the possibility that longterm marijuana use may create changes in the brain that make a person more at risk of becoming addicted to other drugs, such as alcohol or cocaine. Although many young people who use marijuana do not go on to use other drugs, further research is needed to determine who will be at greatest risk.

### How does marijuana affect the brain?

The main active chemical in marijuana is THC (delta-9-tetrahydrocannabinol). The membranes of certain nerve cells in the brain contain protein receptors that bind to THC. Once securely in place, THC kicks off a series of cellular reactions that ultimately lead to the high that users experience when they smoke marijuana. THC affects the nerve cells in the part of the brain where memories are formed. This makes it hard for the user to recall recent events (such as what happened a few minutes ago). It is hard to learn while high — a working short-term memory is required for learning and performing tasks that call for more than one or two steps.

Among a group of long-time heavy marijuana users in Costa Rica, researchers found that the people had great trouble when asked to recall a short list of words (a standard test of memory). People in that study group also found it very hard to focus their attention on the tests given to them.

As people age, they normally lose nerve cells in a region of the brain that is important for remembering events. Chronic exposure to THC may hasten the agerelated loss of these nerve cells. In one study, researchers found that rats exposed to THC every day for 8 months (about 1/3 of their lifespan) showed a loss of brain cells comparable to rats that were twice their age. It is not known whether a similar effect occurs in humans. Researchers are still learning about the many ways that marijuana could affect the brain.

### Can a person become addicted to marijuana?

Yes. Although not everyone who uses marijuana becomes addicted, when a user begins to seek out and take the drug compulsively, that person is said to be dependent on the drug or addicted to it. In 2004, more than 298,317 people entering drug treatment programs reported marijuana as their primary drug of abuse, showing they needed help to stop using.

Some heavy users of marijuana show signs of withdrawal when they do not use the drug. They develop symptoms such as restlessness, loss of appetite, trouble sleeping, weight loss, and shaky hands.

According to one study, marijuana use by teens who have prior serious antisocial problems can quickly lead

to dependence on the drug. That study also found that, for troubled teens using tobacco, alcohol, and marijuana, progression from their first use of marijuana to regular use was about as rapid as their progression to regular tobacco use and more rapid than the progression to regular use of alcohol.

## How can I tell if my child has been using marijuana?

There are some signs you might be able to see. If someone is high on marijuana, he or she might:

- Seem dizzy and have trouble walking.
- · Seem silly and giggly for no reason.
- · Have very red, bloodshot eyes.
- Have a hard time remembering things that just happened.

When the early effects fade, the user can become very sleepy.

Parents should be aware of changes in their child's behavior, although this may be difficult with teens. Parents should look for withdrawal, depression, fatigue, carelessness with grooming, hostility, and deteriorating relationships with family members and friends. In addition, changes in academic performance, increased absenteeism or truancy, lost interest in sports or other favorite activities, and changes in eating or sleeping habits could be related to drug use. However, these signs may also indicate problems other than use of drugs.

In addition, parents should be aware of:

- Signs of drugs and drug paraphernalia, including pipes and rolling papers.
- · Odor on clothes and in the bedroom.
- · Use of incense and other deodorizers.
- · Use of eye drops.
- · Clothing, posters, jewelry, etc., promoting drug use.

### Talking to your children about marijuana

Marijuana can pose a particular threat to the health and well-being of children and adolescents at a critical point in their lives—when they are growing, learning, maturing, and laying the foundation for their adult years. As a parent, your children look to you for help and guidance in working out problems and in making decisions, including the decision not to use drugs. As a role model, your decision to not use marijuana and other illegal drugs will reinforce your message to your children.

For more information about marijuana and other drugs, visit these NIDA websites: www.drugabuse.gov, www.marijuana-info.org, www.teens.drugabuse.gov.

Source: This handout was excerpted from the National Institute on Drug Abuse (NIDA) booklet, "Marijuana: Facts Parents Need to Know." NIDA is part of the National Institutes of Health (NIH), a component of the U.S. Department of Health and Human Services.



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