

MARIJUANA

As the most commonly used illegal drug in the United States, marijuana receives a great deal of attention. It is important to know the facts and what deters youth from using.

Marijuana, or the cannabis sativa plant, is found in many areas of the world. It is also known as “grass,” “pot,” “weed” and nearly 200 other slang terms. ^a It contains the mind-altering substance “THC” as well as hundreds of other chemicals. Marijuana’s effect on the user primarily depends on the strength or potency of the THC it contains. ^b

While marijuana may be mixed with food and eaten, nearly all use in America involves smoking. A “joint” is a marijuana cigarette made from the dried leaves and flowers of the plant. A hollowed out cigar with marijuana inside is called a “blunt”. ^c Hashish and hash oil, made from the sticky resin of the plant’s female flowers, have higher concentrations of THC.

DOES MARIJUANA VARY IN STRENGTH?

Plant strain, climate, soil, and other factors affect the strength or potency of the drug. Users may not know the strength of the marijuana they are using. How it is taken, the user’s tolerance, and whether the user is drinking or using other drugs may also impact the way the drug affects a person. ^d

Law enforcement tests the potency of marijuana that is confiscated. The strength of street samples of marijuana has increased over the years. In 1975, samples with over 1% THC content were rare. In 2003, ordinary marijuana contained, on average, 5% THC. Hashish had an average of 10% THC and Sinsemilla (made from just the buds and flowering tops of female plants) contained 12% THC. ^e

B.C. Bud, a popular type of marijuana cultivated in British Columbia, Canada, had twice the national average – ranging from 15% to 20% or more. ^f

The more potent drug has greater effects and risks for the user. Short term, it increases impairment and risk of injury. Long-term, greater THC levels increase the

health risks caused by THC accumulation in the body. The higher potency of today’s marijuana may also account for higher rates of dependency. ^g

WHAT ARE THE IMMEDIATE EFFECTS OF MARIJUANA?

Effects depend on the dose, the strength of the drug, the user, other drugs in the body, and the setting. Physical effects include an increase in heart rate, reddening of the eyes, and dryness in the mouth and throat. Marijuana’s psychological effects begin to occur even at low doses and increase if higher doses are taken. These effects include relaxation and feelings of euphoria. Short-term memory is impaired. Sense of time and space are altered. The ability to perform tasks requiring concentration, swift reactions, and coordination is reduced. Users’ reports that hearing, vision, and skin sensitivity are enhanced by the drug are not confirmed by objective research. Altered sense of body image and bouts of exaggerated laughter and hunger are also commonly reported.

Effects usually begin and peak soon after smoking, and diminish gradually over several hours. Use is followed by fatigue. Heavy use is often followed by dullness or lack of motivation. Heavy use is defined as a big single dose or lots of use over time.

WHAT IMMEDIATE PROBLEMS OCCUR WITH MARIJUANA?

Youth need to know that marijuana has an effect on memory, judgment and perception – so that when high, the user is more likely to make mistakes that are embarrassing or even dangerous. Timing, movement and coordination are all affected by THC, making it difficult to play sports, dance or succeed in challenging activities. It also affects one’s ability to make good decisions. Being high is associated with risk taking - such as sexual activity that results in sexually transmitted diseases or pregnancy. ^h

Immediate problems may occur, even at low doses.

- Headache, confusion and dizziness are

possible.

- A user may have an “acute panic reaction,” in which the drug’s effects are exaggerated, causing anxiety and a fear of losing control or “going crazy.” Such panic symptoms often go away in a few hours when the acute drug effects have diminished.
- Marijuana can make the user’s heart beat twice as fast as normal. This could be dangerous for people with abnormal heart conditions. It can put people who already have poor blood flow to the heart at increased risk for chest pain ‘angina’ or even heart attack. ⁱ One study has indicated that a person’s risk of heart attack during the first hour after smoking marijuana is four times his or her usual risk. The researchers suggest that a heart attack might occur, in part, because marijuana raises blood pressure and heart rate and reduces the oxygen-carrying capacity of blood. ^j
- Marijuana affects mood, senses, reaction, and coordination. This may cause behavior that leads to injury or death in traffic crashes, or other accidents.
- Despite marijuana’s reputation as a relaxing drug, arguments and aggression may occur in some users.
- Effects on concentration, memory, and coordination can cause poor job or school performance.
- As an illegal drug, marijuana obviously causes the risk of legal problems.

In addition to the health and safety risks given above, a further problem for young people is the drug’s effect on growing up. Marijuana use, like any other drug use, can interfere with the development of social and psychological skills. Young people need to learn how to make decisions, handle success and failure, and form their own beliefs and values. Marijuana and other drugs can interfere with young people becoming mature, independent, and responsible.

The effects of marijuana can also interfere with learning. They impair the user’s thinking, reading, verbal, and math skills.

WHAT LONG-TERM PROBLEMS OCCUR WITH MARIJUANA?

- Smoking marijuana is particularly harmful to the lungs. Smoke of any kind inflames the lungs and affects their functions. People who smoke marijuana often develop the same kinds of breathing problems that cigarette smokers have: coughing and wheezing. Smoking a marijuana cigarette deposits about three to five times more tar into the lungs than one filtered tobacco cigarette. ^k In fact, studies show that smoking three to four joints per day causes at least as much harm to the respiratory system as smoking a full pack of cigarettes every day. ^l Marijuana smokers tend to have more chest colds than nonusers and are also at greater risk of getting lung infections like pneumonia. ^m Evidence shows that smoking marijuana impairs the body cells that defend against bacteria and other disease germs.
- It is likely that smoking marijuana can cause cancer if used for a number of years. It's hard to know for sure whether regular marijuana use causes cancer. But it is known that marijuana contains some of the same, and sometimes even more, of the cancer-causing chemicals found in tobacco smoke. ⁿ
- 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 age-related loss of these nerve cells. ^o
- Marijuana burnout may occur. People who smoke marijuana heavily over long periods may become dull, slow-moving, and inattentive, even when not currently under the influence of the drug. A common term for this is "burned out". These users often do not perceive themselves to be burned out. Burnout may be a sign of drug-related mental impairment, not merely fatigue or a "don't care" attitude. It may not be completely reversible, or it may diminish only after months of abstinence.

The 2004 National Survey on Drug Use and Health: National Findings found that more than 25.5 million persons reported using during the past year. Of these, 75.5% were continuing users, 16.1% had resumed using after abstaining during the prior year, and, 8.4% were first-time users. Of these 2.1 Million first-time users (nearly 6,000 new users each day), 63.8% were younger than age 18 when they used marijuana for the first time. ^p

HOW LONG DOES MARIJUANA STAY IN THE BODY AFTER IT IS SMOKED?

THC is fat soluble ("lipophilic"). It is absorbed into many fat-rich tissues and organs in the body, and builds up in organs such as the brain, liver, lungs, and reproductive organs. Laboratory tests have shown traces of THC in the body for up to a month after the marijuana was smoked.

CAN MARIJUANA CAUSE DEPENDENCE?

It is possible for physical and psychological dependence to occur with regular marijuana use. Tolerance (the need to take more and more of the drug over time to get the original effect) has been shown. The earlier kids start using marijuana, the more likely they are to become dependent. Research shows that marijuana use is three times more likely to lead to dependence among adolescents than among adults. ^q

THC and other cannabinoids in marijuana produce the same sort of changes in the brain associated with the euphoric, rewarding feelings that come from alcohol and cocaine use. ^r A recent study showed that while the numbers of adult users were about the same in 1991-92 as ten years later (2001-02), the rate of those with marijuana dependencies had risen by 22%. Increases in potency along with cultural, psychosocial, economic, and lifestyle factors may explain the larger numbers of adults with marijuana dependency. ^s

CAN MARIJUANA AFFECT PREGNANCY?

Using marijuana during pregnancy creates risks for the unborn child. THC crosses the placenta, especially in early pregnancy. It may have a toxic effect on the fetus. The drug may interfere with the supply of nourishment to the baby through the placenta. ^t Smoking marijuana, like smoking cigarettes, raises levels of carbon dioxide and carbon monoxide in the blood. This reduces the oxygen supply to the fetus. A woman who is pregnant, considering pregnancy, or breastfeeding should not use marijuana.

HOW DOES MARIJUANA AFFECT DRIVING?

Marijuana and driving do not mix. Even low doses of marijuana impair driving skill. The drug significantly affects judgment, caution, and concentration. Marijuana drugged drivers have difficulty judging

distances and may have unusual reactions to sights and sounds. ^u It also affects perception, causing "tunnel vision," slower adjustment of the eyes to changes in light, and impaired judgment of speed and time. Marijuana causes drowsiness and impairs motor skills. Marijuana is often used in combination with alcohol or other drugs, which adds to the dangers.

DO MARIJUANA USERS GO ON TO USE OTHER DRUGS?

Surveys show that regular marijuana users are more likely than nonusers to experiment with other drugs. In this respect marijuana, like tobacco and alcohol, not only causes serious problems itself, but is also considered a "gateway" drug to other drug use.

HOW ARE PEOPLE USUALLY INTRODUCED TO MARIJUANA?

Most people are introduced to marijuana by people of their own age. These are usually acquaintances, friends, or siblings. Introduction can occur early. Smoking tobacco is considered a "first step" which usually occurs before someone first smokes marijuana.

HOW EASY IS IT TO GET MARIJUANA?

A long-term study of substance use and abuse by American youth, college students and young adults called Monitoring the Future (MTF) began in 1975. The MTF surveys, conducted by the University of Michigan's Institute for Social Research, have shown that between 83% and 90% of every senior class during the last 25 years have said they could get marijuana fairly easily. In 2004, 86% of seniors, 73% of all 10th graders and 41% of 8th graders reported they could get the drug fairly or very easily. ^v

HOW MANY PEOPLE USE MARIJUANA?

The 2004 National Household Survey on Drug Abuse and Health: National Findings found that Marijuana is the most commonly used illicit drug. Only slightly higher than in 2003, 14.6 million persons were considered current users having used marijuana or hashish within the past 30 days and 25.5 million persons having used marijuana or hashish during the past year. This is about 6.1% of the total population aged 12 and older. In 2004, marijuana was used by 76.4 percent of all current illicit drug users. Focusing on youth who were

current users of illicit drugs (illicit does not include tobacco), marijuana was the drug most often used (7.6% of the 10.6% of all illicit drug users). The next drugs of choice, after marijuana, were prescription-type pain relievers at 3.8% - tranquilizers, stimulants or sedatives including methamphetamine and OxyContin®, followed by inhalants at 1.2%, hallucinogens at .8% and cocaine at .5%.^w

Most young people have never used marijuana, and even fewer are “current” users. The MTF in 1997 showed that only about one out of every five 10th graders and fewer than one in four high school seniors were current users (had used in past month).^x In 2003, the MTF showed that fewer than one in six 10th graders and one in five high school seniors were current users.^y

WHAT KEEPS YOUTH FROM TRYING MARIJUANA?

The following is a list of reasons why young people say they don’t use marijuana, which comes from national surveys:

- interference with clear thinking
- less energy
- involvement with people who have a bad influence
- makes a person appear less stable, hardworking or sensible and more criminal or weak willed

- hurts school or job performance.^z

The biggest reason youth give for not using is parent disapproval. The U.S. Department of Health and Human Services 2003 National Survey on Drug Use and Health found that most young people (89%) reported that their parents strongly disapprove of their trying marijuana. Among these youth, only 5% had used marijuana in the past month.^{aa} Two-thirds of youth ages 13-17 say losing their parents’ respect is one of the main reasons they don’t smoke marijuana or use other drugs.^{ab}

The perception of risk associated with using marijuana once a month increased among persons aged 12 and older between 2002 and 2003 and both perceived risk and disapproval of marijuana use rose among 8th, 10th and 12th graders during 2003 and 2004.^{ac d}

Research has shown that first time marijuana use occurs more often during the summer months than the rest of the time of year. Having more unsupervised and unstructured time may trigger teens to take the risk of trying marijuana.^{ae} Having more money from summer jobs and being around older co-workers who use also increases risk.^{af}

PARENTS MAKE THE BIGGEST DIFFERENCE

Parents need to keep a close eye on their

youth at all times – but especially when youth have more freedom – such as after school, when home alone or during the summer. Parents should be aware of changes in their child’s behavior, although this may be difficult with teenagers. 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 drug use.^{ag}

The 2003 Partnership Attitude Tracking Study interviewed 1,228 parents nationwide with children under the age of 19. Parents correctly believed that kids today start smoking marijuana at a younger age (12-14 vs. 16-17 years old as when they were young). Fathers were less likely than mothers to see negative consequences for kids who smoke marijuana, such as difficulty coping with life’s problems (45% vs. 58%) and getting along with family (47% vs. 58%) and more likely than mothers to have tried marijuana in their lifetime (59% vs. 52%). Most parents are not current users. Only 7% of parents reported having used marijuana in the past month.^{ah}

TRENDS IN MARIJUANA USE OVER THE LAST TEN YEARS

Marijuana/Hashish use in lifetime	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Eighth Grade	19.9	23.1	22.6	22.2	22.0	20.3	20.4	19.2	17.5	16.3
Tenth Grade	34.1	39.8	42.3	39.6	40.9	40.3	40.1	38.7	36.4	35.1
Twelfth Grade	41.7	44.9	49.6	49.1	49.7	48.8	49.0	47.8	46.1	45.7
College Students	41.7	45.1	46.1	49.9	50.8	51.2	51.0	49.5	50.7	49.1
Young Adults (ages 19-28)	53.6	53.4	53.8	54.4	54.6	55.1	55.7	56.8	57.2	57.4
Marijuana/Hashish use in past 30 days (current users)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Eighth Grade	9.1	11.3	10.2	9.7	9.7	9.1	9.2	8.3	7.5	6.4
Tenth Grade	17.2	20.4	20.5	18.7	19.4	19.7	19.8	17.8	17.0	15.9
Twelfth Grade	21.2	21.9	23.7	22.8	23.1	21.6	22.4	21.5	21.2	19.9
College Students	18.6	17.5	17.7	18.6	20.7	20.0	20.2	19.7	19.3	18.9
Young Adults (ages 19-28)	14.0	15.1	15.0	14.9	15.6	16.1	16.7	16.9	17.3	16.5

Monitoring the Future national survey results on drug use, 1975-2004; volume I, Secondary School Students (NIH Publication No. 05-5727) National Institute on Drug Abuse.

Decline in marijuana use during last two years coincides with increases in perceived risks and disapproval among high school youth.

DOES MARIJUANA HAVE MEDICAL USES?

Whether marijuana has any medical uses is currently in debate. THC, the active chemical in marijuana, is manufactured into a pill available by prescription that can be used to treat the nausea and vomiting that occur with certain cancer treatments and to help AIDS patients eat more to keep up their weight. According to scientists, more research needs to be done on THC's side effects and other potential medical uses. ^{ai}

At this time, the scientific and medical communities have determined that smoked marijuana is a health danger, not a cure. There is no medical evidence that smoking marijuana helps patients. In fact, the Food and Drug Administration (FDA) has approved no medications that are smoked, primarily because smoking is a poor way to deliver medicine. Congress enacted laws against marijuana in 1970 based in part on its conclusion that marijuana has no scientifically proven medical value, which the U.S. Supreme Court affirmed more than 30 years later in *United States v. Oakland Cannabis Buyers' Cooperative, et al.*, 532 U.S. 483 (2001). Marijuana remains in schedule 1 of the Controlled Substances Act because it has a high potential for abuse, a lack of accepted safety for use under medical supervision, and no currently accepted medical value. ^{aj}

LEGAL INFORMATION

Marijuana, hashish, hash oil, and related cannabis products are controlled substances under Michigan and federal law. Use, possession, delivery, possession with intent to deliver, and manufacture of the drug are all illegal. Penalties include imprisonment and fines. Certain penalties are mandatory.

Penalties are increased if a person eighteen years or older distributes the drug to a person under eighteen, or distributes the drug near school property.

For details on the legal penalties, refer to the Michigan Law Fact Sheet in this series.

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