

# ADDITIONAL MARIJUANA FACTS

## Facts about Marijuana and Marijuana Abuse

### Identification:

Marijuana is a green, brown, or gray mixture of dried, shredded flowers and leaves of Cannabis Sativa, the hemp plant. (Other terms have been used to describe the plant [e.g., Cannabis Indica, Cannabis Ruderalis]; all really are referring to varieties of Cannabis Sativa.)

### Active Ingredient:

Delta-9-tetrahydrocannabinol or THC, one of nearly 400 chemicals in the hemp plant, accounts for much of the marijuana's psychoactive or mind-altering effects. The strength of the drug is determined by the amount of the THC it contains. Recent data show the following:

- Most ordinary marijuana has an average of 3 to 8 percent THC, though it has been getting stronger in recent years.
- Sinsemilla ("without seeds"), the buds and flowering tops of the female plants, has an average THC concentration of 7.5 percent, although it can be as high as 24 percent.
- Currently, marijuana obtained through medical marijuana dispensaries may range from 15 percent to 25 percent THC.
- Hashish, a sticky resin obtained from the female plant flowers, has an average of 2 to 8 percent THC and can contain as much as 25 percent THC.
- Hash oil, a tar-like liquid distilled from hashish, generally consists of between 15 and 50 percent THC but can have as much as 70 percent THC.
- Hash oil-like variants (e.g., "butter" or "shatter") also may have as much as 70 percent THC.

### Methods of Use:

Most users roll loose marijuana into a cigarette commonly known as a "joint". A typical joint contains between 0.5 and 1.0 gram of cannabis plant matter, which varies in THC content between 5 and 150 milligrams. The drug also can be smoked in a pipe. One well-known type of water pipe is the bong. Users have found another way to smoke the drug, by slicing open cigars and replacing the tobacco with marijuana. The resulting marijuana cigar is called a "blunt". In recent years, another method is to place hash oil into vaping pens. Some users also mix marijuana into foods or use it to brew tea. Several types of edibles now exist including infusing THC into chocolate, cookies, or gummy bears, as examples. Very strong forms of THC might also be smoked on the head of a pin such as "butter", "wax" or "shatter" forms.

## **Extent of Use:**

Marijuana is the most used illicit (at the Federal level) drug in the United States. According to the 2014 National Survey on Drug Use and Health, an average of 22.2 million Americans uses marijuana each month. Marijuana was used by 81 percent of current illicit drug users in 2013, and for 64.7 percent of them, it was the only drug used.

The National Institute on Drug Abuse's (NIDA) Monitoring the Future study, a national survey among middle and high school students, found that in 2015, 11.8 percent of 8<sup>th</sup> graders reported marijuana use in the past year. By the 12<sup>th</sup> grade, 34.9 percent of students had used marijuana in the past year, and 21.3 percent of them were current users (last 30 days).

## **Effects of Use:**

Within a few minutes of inhaling marijuana smoke, users likely experience dry mouth, rapid heartbeat, some loss of coordination and poor sense of balance, and slower reaction times, along with intoxication. Blood vessels in the eye expand. For some people, marijuana raises blood pressure slightly and can double the normal heart rate. This effect can be greater when other drugs are mixed with marijuana. Research has also documented the following chronic or long-term effects of marijuana use.

## **Effects on the Brain:**

THC suppresses the neurons in the information-processing system of the hippocampus, the part of the brain that is crucial for learning, memory, and the integration of sensory experiences with emotions and motivation. Researchers have discovered that certain aspects of learned behaviors and memory which depend on the hippocampus, deteriorate after chronic exposure to THC. Of possible relevance are findings from animal studies showing that chronic exposure to THC damages and destroys nerve cells and causes other pathological changes in the hippocampus.

## **Effects on the Respiratory System:**

Someone who smokes marijuana regularly may have many of the same respiratory problems that tobacco smokers have. These individuals may have daily cough and phlegm, symptoms of chronic bronchitis, and more frequent chest colds. Continuing to smoke marijuana can lead to abnormal functioning of the lungs and airways. Scientists have found signs of lung tissue injured or destroyed by marijuana smoke.

# MEDICAL & RECREATIONAL MARIJUANA: LEGAL ISSUES

We have found that sometimes students ask questions regarding the legal status of medical and or recreational marijuana. Specifically, they wonder why some people can obtain marijuana for medical and/or recreational use without legal penalties, yet marijuana remains an illegal substance in numerous states. The students' confusion is understandable: state and federal law do seem to contradict. The information below may help to clarify the legal issues.

## Medical Marijuana and the Law:

- The federal government has the Controlled Substance Act (CSA), which forbids possession of marijuana (whether for medical use or not).
- As of January 2017, 28 states and the District of Columbia have passed laws that legalize medical marijuana in some form. These states include: *Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Hawaii, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington.*
- The Supreme Court found that the CSA is constitutional and good law. Possessing marijuana, whether for medical use or not, is illegal under federal law.
- On October 20, 2009 the U.S. Justice Department announced a formal policy stating that the federal government will no longer prosecute people using, prescribing, or distributing marijuana for medical purposes, as long as they are in compliance with state and local laws. Thus, the Trump administration will not prosecute medical marijuana use that is allowed by state law, even if such use breaks federal law. However, the federal government reserves the right to change its position on marijuana regulation in the future.

## Recreational Marijuana and the Law

- As of January 2017, 8 states and the District of Columbia have passed laws to legalize marijuana for recreational use. These states include: *Alaska, California, Colorado, Massachusetts, Maine, Nevada, Oregon, and Washington.*
- Specific laws regulate the age, sale, cultivation, and amount of marijuana consumption within each state. Marijuana transported across state borders is subject to state and federal laws.

## Regulation Differences and Developments:

- Recent data suggests that in states that have legalized marijuana for medical use, there are considerably higher rates of teen marijuana use (past-month) than in states that have not legalized medical marijuana.
- In states where recreational marijuana is legal, general controls exist to regulate the marijuana market with licensing and taxation systems.
- However, regulations in some states that have legalized medical and recreational marijuana remain murky because laws governing distribution may vary from one local jurisdiction to another.

# MARIJUANA USE CONSEQUENCES

1. The well-confirmed danger of smoking marijuana is lung damage and lung cancer. As examples:
  - 1 joint = 5 cigarettes in terms of amount of carbon monoxide (CO) intake.
  - 1 joint = 4 cigarettes in terms of amount of tar intake.
  - 2 joints = 20 cigarettes in terms of microscopic damage to cells lining the airways.

1 joint per day leads to a greater chance of lung damage than regular cigarette smoking.
2. If you use marijuana over several years, it disrupts encoding of your long-term memory. It impairs biosynthesis of nucleic acids and proteins.
3. Adult users report the following consequences: memory loss, less able to concentrate, lower motivation, less self-esteem, problems with relationships, problems with health, and problems with jobs and finances. If a woman who uses marijuana gets pregnant, it can cause include low birth weight and prematurity of her infant.
4. Very high doses of marijuana produce a toxic delirium (especially if eaten), which may lead to confusion, agitation, disorientation, loss of coordination, and hallucinations. There are few known deaths from overdoses. However, if someone took a dose that was 1000 times stronger than the dose that gets one “high,” it could poison you.
5. The active component of marijuana is THC. It is stored in the blood for several months in regular users. Withdrawal symptoms include the ones typical of other drugs, including difficulty concentrating, irritability, urges to use, difficulty sleeping, depression, vivid dreams, anger, headaches, sweating, coughing and decrease in appetite.
6. Effects of marijuana on coordination place users at risk for accidents. THC is found in the blood of more than 30% of fatally injured drivers.
7. Twelve questions to determine whether or not you are a marijuana addict are listed in information from Marijuana Anonymous (MA). An example of a question is this: Is it hard to imagine a life without marijuana?
8. Marijuana users do seek treatment. Most of those who seek marijuana cessation treatment are not currently using other drugs. The relapse rate among marijuana users (in other words, the number who go back to using marijuana) is the same as that for cigarette smokers, alcoholics and heroin addicts. Approximately 65% of users relapse by 3 months after they finish treatment.
9. Perhaps because of increase in the THC content of marijuana, and potential for anxiety attacks while using, emergency room visits related to marijuana use have increased by approximately 20% in recent years.