## FAOS: Health Effects of Marijuana

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#### IS MARIJUANA SAFE?

Although marijuana may help reduce symptoms of certain medical conditions, it also may have some harmful effects depending on how often it is used. There is clear evidence that regular use of marijuana increases the risk of heart, lung and mental health problems. Less is known about the health issues that might be caused by casual or infrequent marijuana use. Marijuana is a natural product that doesn't have to be tested in a lab. Typical marijuana plants contain more than 400 chemicals, including about 60 that can interact with the body's nervous system. If you smoke marijuana you might inhale more than 2,000 chemicals. Many of those chemicals are similar to the ones in cigarette smoke. Marijuana also can be contaminated with mold, insecticides or other chemicals. Health effects of many of these chemicals are not known.

#### WHAT ARE THE EFFECTS OF USING MARIJUANA?

The effects of marijuana may include:

- A happy, relaxed or "high" feeling
- Slower reactions
- Dizziness
- Trouble thinking, learning and remembering
- Confusion, anxiety, panic or paranoia
- Fast heart rate
- Increased blood pressure
- Less interest in normal activities
- Hunger
- Dry mouth
- Red eyes
- Psychosis (rarely) which is seeing or hearing things that aren't real

These effects typically last two to three hours after marijuana is smoked or inhaled. When marijuana is eaten, the effects take longer to start and may last four to 10 hours.

#### IS MARIJUANA ADDICTIVE?

Long-term marijuana use can, in some cases, lead to addiction, which means a person can't control or stop marijuana use even though it interferes with daily life.

According to the National Institute on Drug Abuse, about 9 percent of people who start using marijuana as an adult will become addicted. About 17 percent who start using marijuana between ages 13 and 25 will become addicted. And half of the people who use marijuana daily become addicted. Marijuana users make up 17 percent of the people that enter publicly-funded rehab programs.







This fact sheet was developed by the Colorado Department of Public Health and Environment.



For questions about marijuana and health, call (303) 692-2700 or e-mail cdphe\_toxcall@state.co.us.

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## FAQS: Health Effects of Marijuana

### WHAT IS KNOWN ABOUT THE LONG-TERM HEALTH EFFECTS OF MARIJUANA?

#### Effects on Daily Life

Compared to other people, heavy marijuana users report:

- Less satisfaction with life
- Poor mental and physical health
- Relationship problems
- Less success at school or work

#### Cardiovascular Effects

Smoking marijuana makes the heart beat 20-100 percent faster. This increase can last up to three hours. Marijuana also can change heart rhythms. One study showed marijuana users are 4.8 times more likely to have a heart attack in the first hour after smoking. Older people and those with heart problems may be at greater risk for heart attack.

#### **Respiratory Effects**

Marijuana smoke irritates the lungs. Frequent marijuana smokers can have many of the same problems that tobacco smokers have, such as a daily cough, mucus, more chest colds and a higher risk of lung infections. One study found people who smoke marijuana frequently, but who don't smoke tobacco, have more health problems and miss more days of work than nonsmokers.

#### **Lung Cancer**

It isn't known if smoking marijuana causes lung cancer. Some of the cancer-causing chemicals in tobacco smoke are also in marijuana smoke. Marijuana smokers may inhale deeper and hold the smoke in their lungs longer. So, marijuana smokers' lungs may be exposed to more chemicals that can cause cancer. Lung tissue from regular marijuana users have shown signs of pre-cancerous changes. However, several studies have failed to show that marijuana smokers have a higher risk of lung cancer. More studies about marijuana smoking and lung cancer are needed.

#### Mental Health

A number of studies have shown a link between regular marijuana use and mental illness. High doses of marijuana can cause a temporary psychotic reaction (not knowing what is real, hallucinations and paranoia). Using marijuana can make people with schizophrenia worse. There are also links between marijuana use and other mental health problems, such as depression, anxiety, suicidal thoughts and personality disturbances, including a lack of interest in rewarding activities. More studies are needed to better understand these links.

## Is marijuana more harmful to adolescents?

Doctors are most concerned about the effect of marijuana on children's and teenagers' growing brains. The earlier in life a person starts using marijuana, the more likely the person will become addicted.

Regular marijuana use among teens has been linked to social problems, learning and memory problems, and falling IQ scores. And these problems do not go away after marijuana use has stopped.

Marijuana use among teens also has been linked with more serious mental health issues such as psychosis and schizophrenia, especially among those with a family history of mental illness. The potential for depression and anxiety may also be higher among teen marijuana users.

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### IS MARIJUANA SAFE FOR PREGNANT OR BREASTFEEDING WOMEN?

As with alcohol and cigarettes, there likely is no "safe" amount of marijuana use during pregnancy. THC, the chemical in marijuana that makes a person "high," can pass from mother to the unborn child through the placenta. This means the unborn child is exposed to THC used by the mother. Smoking also passes carbon monoxide to the unborn child, which disrupts the oxygen supply and can result in growth issues, possible premature birth, miscarriage or stillbirth. There is some evidence marijuana use during pregnancy can result in babies with low birth weight, certain birth defects and symptoms similar to fetal alcohol syndrome. THC can also be passed from the mother's breast milk, potentially affecting the baby.

#### DOES MARIJUANA AFFECT THE ABILITY TO DRIVE?

Driving while impaired by any substance is illegal and unsafe. People under the influence of marijuana should not drive or operate machinery. Marijuana affects reaction time, memory, coordination, concentration and perception of time and distance. In Colorado, it is illegal to drive while impaired. It also is illegal to use or display marijuana on a public road, and to have marijuana in the passenger area of a vehicle (either in an open container or container with a broken seal).

### IS SECONDHAND SMOKE FROM MARIJUANA DIFFERENT THAN OTHER SECONDHAND SMOKE?

Secondhand smoke from marijuana has many of the same chemicals as smoke from tobacco, including those linked to lung cancer. While more studies are needed, secondhand smoke from marijuana may increase the risk of lung cancer. Also, secondhand smoke from marijuana can cause lung irritation, asthma attacks, and make respiratory infections more likely. If you have children or non-users in your family or home, it is important to practice safer smoking behaviors, like not smoking indoors or in your car.

### IS MEDICAL MARIJUANA DIFFERENT THAN REGULAR OR RECREATIONAL MARIJUANA?

There is no difference between marijuana sold for recreational and medical use. Recreational marijuana sellers use many of the same growers and kinds of marijuana as those for medical marijuana. There are a number of different kinds of marijuana, some of which have lower levels of THC and higher levels of other substances believed to help improve certain medical conditions.

# Do I need to worry about chemicals, bacteria or mold in my marijuana?

There have been reports of marijuana being contaminated by mold, bacteria and pesticides. Some contamination issues have led to disease outbreaks and other health problems. The chemical process used to create marijuana products such as wax and hash oil is another area of concern.

Until new regulations come into effect in late 2014, Colorado retail marijuana is not required to be tested for contaminants. Some growers and sellers already have started to test their products for contamination. All marijuana products must have labels listing any chemicals that were used during growing or production, and whether the product has been tested for contaminants. Products that have not been tested for contaminants must be labeled as "not tested."

#### **References and Resources:**

- Colorado Department of Public Health and Environment: www.colorado.gov/cdphe/marijuana
- ${\bf \bullet} \ \, {\bf Colorado\ Department\ of\ Transportation: www.coloradodot.}$  in fo/programs/alcohol-and-impaired-driving/druggeddriving
- National Institute on Drug Abuse: www.drugabuse.gov/drugs-abuse/marijuana
- University of Washington, Alcohol and Drug Abuse Institute: learnaboutmarijuanawa.org
- Seattle, King County Public Health: www.kingcounty.gov/healthservices/health/marijuana.aspx
- National Cannabis Prevention and Information Centre (Australia): ncpic.org.au
- Denver Health: www.denverhealth.org/ public-health-and-wellness/public-health/health-informationfor-denver/common-public-health-problems/marijuana