## FAOS: Marijuana and Methods of Use

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Although marijuana use might help reduce the symptoms of certain medical conditions, it also may cause harmful effects depending on how often it is used. There is clear evidence that regular use of marijuana increases the risk of heart, lung, mental health problems, and some types of cancer. Less is known about health issues that might be caused by casual or infrequent marijuana use.

Marijuana smoke includes many of the same chemicals as tobacco smoke, including many of the chemicals that have been linked to cancer. As with alcohol and tobacco, there is no "safe" level of marijuana use during pregnancy or breastfeeding. Even for healthy adults, there is no risk-free method of marijuana use. However, some methods of use may decrease the risk of some of the harmful health effects.

#### IS SMOKING MARIJUANA SAFE?

Marijuana smoke irritates the lungs. Frequent marijuana smokers can have many of the same problems as tobacco smokers, such as a daily cough, mucus, more chest colds and a higher risk of lung infection. 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 shows 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.

### IS VAPING OR VAPORIZING SAFER THAN SMOKING MARIJUANA?

Vaporizers heat marijuana to release its active ingredients without burning. As with water pipes or bongs, there has not been enough research to know if using a vaporizer is safer than unfiltered smoking of marijuana. Some research shows that vaporizers lower the amount of potentially harmful tars in smoke. Other studies have shown fewer respiratory symptoms among those using vaporizers. However, a recent study has shown that vaporizing marijuana can lead to toxic levels of ammonia in the vapor. Ammonia can cause lung irritation, nervous system effects and asthma attacks. As there are many different types and models of vaporizers available, more research is needed to measure the chemicals produced by vaporizing marijuana and marijuana extracts.







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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#### IS SMOKING MARIJUANA THROUGH A WATER PIPE OR BONG SAFER THAN SMOKING WITHOUT A FILTER?

When using a water pipe or bong, the smoke goes through water before it is inhaled by the user. Research on tobacco smoke suggests some of the chemicals in smoke are filtered out by water. However, the most recent research with marijuana suggests water is actually better at filtering out THC (the chemical in marijuana that makes a person "high") than in filtering out potentially harmful tars. This means a smoker using a water pipe would probably inhale more harmful tars in order to get the same dose of THC as someone smoking an unfiltered marijuana cigarette or joint.

#### IS IT SAFE TO EAT OR DRINK MARIJUANA-INFUSED PRODUCTS?

While eating or drinking marijuana infused-products removes the possible lung and respiratory effects, the user still is ingesting THC (the chemical in marijuana that makes a person "high"). THC can cause heart and mental health problems. The effects of THC are delayed by 30 to 60 minutes after eating or drinking marijuana-infused products, compared to just seconds or minutes after inhaling marijuana smoke or vapor. This means it takes longer to feel effects from eating marijuana. Usually, the effects of marijuana peak two to three hours after eating or drinking it. That can make it hard for the user to know how much they should take. Also, the effects from eating marijuana can last up to 10 hours. This lengthens the time of impaired coordination that can lead to unsafe driving.

### ARE THERE FOOD SAFETY GUIDELINES TO FOLLOW FOR PUTTING MARIJUANA IN FOOD OR DRINKS?

There is no way to guarantee safety when putting marijuana in food. You can lower risks of exposure to bacteria and viruses by following safe food handling practices and good hand washing. More information on safe food handling is available at *www.foodsafety.gov*.

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

- Colorado Department of Public Health and Environment: www.colorado.gov/cdphe/marijuana
- $\bullet \ Colorado \ Department \ of \ Transportation: www.colorado dot.info/programs/alcohol-and-impaired-driving/drugged driving$
- National Institute on Drug Abuse: www.drugabuse.gov/drugs-abuse/marijuana
- $\bullet \ University \ of \ Washington, \ Alcohol \ and \ Drug \ Abuse \ Institute: learn about marijuan awa.org$
- $\bullet \ Seattle, King\ County\ Public\ Health: www.kingcounty.gov/healthservices/health/marijuana.aspx$
- National Cannabis Prevention and Information Centre (Australia): ncpic.org.au

# Is there a certain method of marijuana use that is safer around children?

Marijuana should not be used around children. Smoking marijuana can expose others to secondhand smoke. This has similar dangers to smoke from tobacco.

Vaporizers might also lead to exposures to chemicals. Edibles or marijuana-infused products can lead to accidental poisonings in children, because they may think they are eating regular food. Avoid use of marijuana around children, in any form, and keep marijuana stored safely out of their reach.

### How should I store my marijuana?

There have been accidental marijuana poisonings in Colorado. To avoid accidents, ALL marijuana-containing products should be:

- 1. Clearly labeled
- 2. Stored in a child-resistant container
- 3. Kept in a locked cabinet