

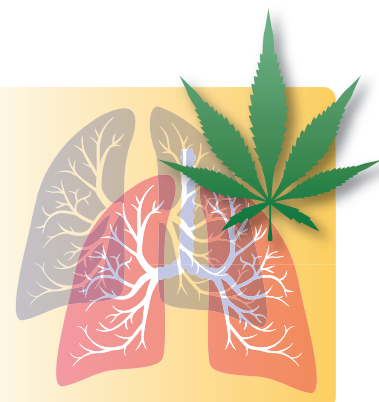


AMERICAN THORACIC SOCIETY

Patient Information Series

Smoking Marijuana and the Lungs

Marijuana, also known as cannabis (can-a-bis) is the most widely used illegal drug in the world. After tobacco, it is the second most commonly smoked substance. About 11 million people in the United States use marijuana. The harmful effects of tobacco smoke are well known, but we



have less information about the health effects of marijuana. Few research studies have been done since marijuana remains illegal in most countries, and since marijuana can be inhaled in many ways (e.g. water pipes, joints etc). It is likely that in frequent users (and some less frequent users), marijuana harms the lungs, and that there is not a safe way to smoke marijuana.

How can smoking marijuana damage my lungs?

Tobacco smoke of **any** kind is a common cause of *bronchitis* (swelling of the airways/breathing tubes) and/or chronic obstructive pulmonary disease-COPD (see ATS Patient Series on COPD at <http://patients.thoracic.org/information-series/index.php>). Heavy marijuana smokers also are likely to develop lung damage because marijuana smoke contains many of the same harmful chemicals as tobacco smoke. We do not know if smoking a small amount of marijuana (for example, light users who smoke an amount equal to 1-2 joints a month) over a long period of time increases your risk for developing COPD. We do know that in some people (especially those with lung problems), smoking marijuana can make their breathing worse.

Besides COPD, marijuana smoking can cause other problems in your lungs. Large air sacs in the lung, called *bullae* can develop. This often happens in younger marijuana smokers (less than 45 years old). We are not sure why certain marijuana smokers develop these bullae and others do not. Bullae can cause you to be short of breath (breathless) and if they rupture ("pop"), they can be life-threatening.

Marijuana can also make many lung

conditions such as asthma and cystic fibrosis worse. Marijuana use can cause an asthma attack, which can lead to hospitalizations and even death. Cystic fibrosis is a chronic lung disease that results in poor lung function and places people at increased risk for lung infections (see information on lung infections). While there are no studies about the effects of marijuana use on patients with cystic fibrosis, smoking is not recommended. Also, cystic fibrosis patients who smoke marijuana may not be eligible to receive a lung transplant.

What kind of symptoms can I get that tells me smoking marijuana is affecting my lungs?

Marijuana smoke (like tobacco) causes coughing, increased sputum ("phlegm") and wheezing. Also, marijuana can cause shortness of breath and swelling in your throat. When you stop smoking, you can expect your symptoms to improve and possibly go away completely.

Does smoking marijuana increase my risk of getting lung cancer?

Since marijuana contains cancer-causing chemicals (carcinogens) similar to tobacco smoke, your risk for lung cancer may be increased if you smoke marijuana. Also, marijuana users expose their lungs to a larger amount of smoke because they tend to inhale more deeply, smoke without filters, and hold their breath when they inhale. This type of inhalation pattern exposes your lungs to more smoke than a cigarette. For those receiving treatment for lung cancer, smoking tobacco (and this may be true for marijuana as well) increases

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the risk of death and decreases how well the cancer treatment works.

Can smoking marijuana increase my risk of lung infection?

Marijuana has been linked to lung infections from a mold called “aspergillus” (read about Aspergillosis at <http://patients.thoracic.org/information-series/index.php>). This infection can cause pneumonia and even death. Death occurs more frequently in people with weak immune systems, such as those who have had an organ transplant, are on chemotherapy or take drugs that weaken the immune system. Aspergillus is present in our environment including our home (the dust in carpets, air ducts etc.). Aspergillus can live on the marijuana plant and be inhaled in the marijuana smoke. It is not recommended that you smoke marijuana if you have cancer, are taking chemotherapy, have had a lung transplant, or have a weak immune system.

Hasn't marijuana been used to treat people with health problems?

Many groups have asked for marijuana to become legal, especially for the treatment of conditions such as nausea and chronic pain. Marijuana has not been approved by the FDA (Food & Drug Administration) for any known medical condition. In order to get FDA approval, the benefits of a drug have to be greater than the risks of taking the drug.

There are however, drugs with the active ingredient found in marijuana. These drugs contain THC (tetrahydrocannabinol) and are FDA-approved for pain and nausea, and may be prescribed by health care providers. Several states also allow for health care providers to prescribe medical marijuana for health reasons.

Can smoking marijuana help me sleep?

Marijuana causes drowsiness, but has not been studied as a way to help you sleep. Marijuana use (and withdrawal from regular use) has been shown to cause sleep problems that may last weeks after stopping.

Is there a way to smoke marijuana safely?

Marijuana can be inhaled in many different ways, including joints, water bongs (read about Hookah Pipes at <http://patients.thoracic.org/>

[information-series/index.php](http://patients.thoracic.org/information-series/index.php)) and vaporizers. None of the available delivery devices have been studied in detail to safely say they will *protect* you from the harmful effects of the smoke. No method of inhalation can therefore be considered safe.

What about people who are exposed to the smoke from marijuana?

Second-hand smoke (inhalation of another person's marijuana smoke) can cause serious health problems, especially in infants and children or anyone with a chronic lung condition. Second-hand marijuana smoke contains many poisons including cyanide and ammonia.

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References:

National Institute Of Drug Abuse

<http://www.drugabuse.gov/publications/drugfacts/marijuana>

Cancer Research UK

<http://www.cancerresearchuk.org/cancer-help/about-cancer/cancer-questions/does-smoking-cannabis-cause-cancer>

Rx Action Plan

- ✓ Let your health care provider know if you smoke marijuana
- ✓ Talk with your health care provider if you smoke marijuana while being treated for lung cancer
- ✓ If you smoke marijuana for nausea or pain, talk to your doctor about other options to treat your symptoms
- ✓ Avoid smoking marijuana around children, especially if they have lung problems

Doctor's Office Telephone: