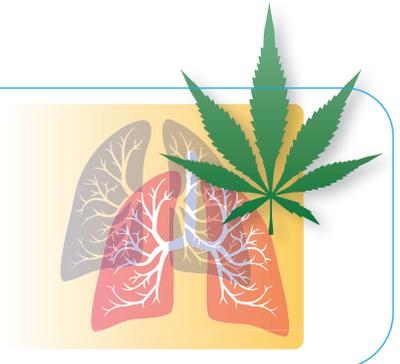


Inhaled Marijuana and the Lungs

Marijuana, also known as cannabis, is the second most commonly smoked substance after tobacco. Despite marijuana's legalization in many states and other countries such as Canada, marijuana smoke is harmful to your lung health, particularly if you have lung disease or other medical conditions.



Both daily and near-daily use of marijuana has been rising steadily since 2008. Legalization has contributed to the false perception that health risks with marijuana use are low. However, since it is usually smoked or inhaled, healthcare providers remain concerned about its impact on lung health. While research studies are still untangling how smoking marijuana affects health in general and lung health in particular, it is likely that there is no safe way to smoke marijuana since all forms of smoke can be harmful.

How can smoking marijuana damage your lungs?

Marijuana smoke or vapor contains many of the same harmful chemicals found in tobacco smoke. Additionally, since marijuana use can involve deep inhalation and long breath holding, marijuana inhalation may deposit even more chemicals within the lungs than inhaled tobacco. This means that for some people, especially those with pre-existing lung problems, smoking marijuana can make their breathing worse. We recommend against smoking marijuana for anyone, particularly in people with an existing lung disease, such as COPD or asthma. As a plant-based product, marijuana has the potential to affect allergy and asthma control. Furthermore, marijuana use may make those with serious lung illness ineligible to receive a lung transplant.

Some methods of smoking marijuana may expose you to tobacco smoke or other substances that may be harmful to the lungs. For example, smoking marijuana “blunts”, where marijuana flowers are wrapped in a tobacco-containing material, exposes the user to both marijuana and tobacco.

Nicotine in tobacco is very addictive and similarly,

people can become addicted to (or dependent on) marijuana. People who are marijuana-dependent may be more at risk for harmful lung effects because of their heavy use over time. However, even light users of marijuana (e.g. users who smoke an amount equal to 1-2 joints a month) over a long period of time may increase their risk for lung disease. Therefore, no amount of marijuana use can be considered safe.

What symptoms may indicate that marijuana is affecting your lungs?

Marijuana smoke causes coughing, increased sputum or phlegm, wheezing, shortness of breath and inflammation of lung tissue. People who stop smoking often find their symptoms improve and sometimes go away completely.

What are the risks of vaping marijuana?

Healthcare providers are investigating widespread reports of serious lung problems associated with vaping, which have included irreversible lung damage and some cases, death. (See ATS Health Alert—E-cigarette or Vaping-Associated Lung Injury [EVALI]). Concerns with vaping include its high concentration of THC (tetrahydrocannabinol), chemicals in vaporized marijuana, and the temperature of the vape. The cause of these vaping lung problems is still being investigated.

Is there a way to inhale marijuana safely?

Marijuana can be inhaled in many different methods, including joints, blunts, hand-held and table-top vaporizers, pipes, and water bongs. None of the delivery devices where marijuana is consumed without smoking have been studied in detail to determine their safety. Additionally, using marijuana concentrates by inhalation can

expose the user to extremely high concentrations of THC, which may affect the body's immune system. Inhaling any marijuana product can also expose the user to chemicals and pesticides contained in available products. How these substances affect the proper function of the lung is unknown. No method of inhaling marijuana, smoked or not smoked, can therefore be considered safe until further studies are done.

Can smoking marijuana increase your risk for lung infections?

Marijuana can be contaminated by mold and bacteria. Some marijuana smokers develop a lung infection from a mold called "aspergillus" (read about Aspergillosis at www.thoracic.org/patients/). Aspergillus is a fungus which lives on marijuana plants and is inhaled in marijuana smoke. Aspergillus causes serious lung infections, particularly for people with weakened immune systems such as those with cancer or who take immunosuppressive medications. Smoked or inhaled marijuana is not recommended for people with on chemotherapy or for anyone with an organ transplant or a weakened immune system.

Does smoking marijuana increase your risk of getting lung cancer?

Marijuana smoke may increase the risk of lung cancer. Marijuana smoke contains over 450 unique chemicals including many cancer-causing chemicals (carcinogens) similar to tobacco smoke. Current evidence is evolving as to whether inhaled marijuana is an independent risk factor for the development of lung cancer. For those with lung cancer and are on treatment, smoking tobacco increases risk of dying and decreases the effectiveness of cancer treatment. This may be true for marijuana as well.

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

Marijuana is often used by people who suffer from symptoms such as nausea and chronic pain. Several states allow healthcare providers to prescribe marijuana for specific health reasons. Use of medical marijuana should be discussed with your healthcare provider. The FDA (Food & Drug Administration) has approved oral medications that contain specific compounds in marijuana for treatment of a limited number of medical indications, but not for any lung diseases.

Can smoking marijuana help you sleep?

Marijuana use (and withdrawal from regular use) has been shown to cause sleep problems. Marijuana use may be a risk factors for sleep apnea and may worsen overall sleep quality.

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 for infants and children, and for anyone with a chronic lung condition. Second-hand marijuana smoke, like all marijuana smoke, contains many poisons including cyanide and ammonia. Protecting yourself and others from second-hand smoke exposure is essential for maintaining good lung health.

Action Steps:

- ✓ Let your healthcare provider know if you smoke marijuana.
- ✓ Talk with your healthcare provider if you smoke marijuana while being treated for lung cancer.
- ✓ If you smoke marijuana for medical symptoms, talk to your healthcare provider about non-marijuana treatments.
- ✓ Avoid smoking marijuana around children, especially if they have lung problems.

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Resources:

American Thoracic Society

- ◆ www.thoracic.org/patients/
 - EVALI
 - E Cigarettes/Vaping

Centers for Disease Control (CDC)

- ◆ <https://www.cdc.gov/marijuana/index.htm>

National Institute of Drug Abuse (NIDA)

- ◆ <https://www.drugabuse.gov/publications/drugfacts/marijuana>

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