



# Exploring Both the Positive and Negative Effects of Marijuana Use on Asthma

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## Marijuana and Asthma: Helpful or Harmful?

According to the Asthma and Allergy Foundation of America, one in 13 people suffer from asthma. This equates to approximately 25 million Americans — 7.7% of adults and 8.4% of children. Unfortunately, this number is on the rise in all ages, both sexes and all racial groups.

Between the years of 2008 and 2013, asthma cost America an estimated \$81.9 billion:

- \$50.3 billion in medical costs
- \$29 billion in asthma-related mortality
- \$3 billion in missed work and school days

Marijuana has become a popular treatment for various medical conditions. It has become legalized in many states, both medically and recreationally. So, naturally, you may be thinking, is marijuana a viable treatment option for asthma?

## How Does Smoking Marijuana Affect Those with Asthma?

Various studies indicate that marijuana itself may be helpful in the treatment of asthma. The important factor? How the marijuana is ingested.

Research indicates that the helpful part of marijuana are the cannabinoids; cannabinoids are naturally occurring in the marijuana plant and have anti-inflammatory properties. Because asthma, by nature, is an inflammatory process, it stands to reason that cannabinoids would be helpful in treating asthma.

There have been various studies that indicate that marijuana may be helpful in treating asthma:

- A 2013 study published in Substance Abuse found that people who smoked marijuana using a vaporizer noted an increased benefit as opposed to those who smoked marijuana with irritating smoke.
- A study published in Current Opinion in Pulmonary Medicine argued that using marijuana for short durations most likely will not harm the lungs as opposed to recreational and heavy marijuana smoking. However, the researchers did not define how long or how heavy was considered safe.
- A 2015 animal study suggested that the use of cannabidiol (CBD) had an anti-inflammatory effect and thus may be helpful in treating asthma.
- Various studies have suggested that tetrahydrocannabinol (THC), the psychoactive component of marijuana, also has a bronchodilatory effects, potentially making it easier for people with asthma to breathe.

However, most people who use marijuana smoke the plant, which is not recommended for those with asthma.

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This makes it difficult to assess for positive effects on the lungs.

## **What Are the Risks Associated with Asthma and Marijuana Use?**

The American Thoracic Society points out that we know full well what the effects of cigarette smoke are on the lungs, but we are still unsure what the effects of marijuana are on the lungs. They state, “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, vaping 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.”

### **Harmful Chemical Compounds of Smoking**

Cigarette smoking can cause bronchitis and COPD. Theoretically, heavy marijuana smoking may cause similar effects as cigarette smoking. Why? Because marijuana smoke contains some of the same harmful compounds as cigarette smoke. In addition, experts believe that even light marijuana smoking will irritate the lungs of those with breathing problems.

### **Asthma Exacerbation**

Studies indicate that smoking marijuana can increase the likelihood of an asthma attack in those who have asthma. It can also worsen asthma if smoked during an asthma attack, causing further irritation to the lungs and a worsening cough.

### **Bullae**

Marijuana smoking can cause bullae to develop, especially in young smokers. Bullae are large air sacs that can cause shortness of breath; when they rupture, a collapsed lung can occur, and this leads to a life-threatening condition called a pneumothorax.

### **Carcinogens and Lung Cancer Risk**

Furthermore, smoking marijuana may increase the likelihood of developing lung cancer. Marijuana smoke contains over 450 various chemicals, some of which are carcinogens.

### **Don't Have Asthma?**

What if you're not an asthmatic? Unfortunately, you're not off scot-free. Smoking marijuana increases your likelihood of developing asthma later in life, especially if you have allergic asthma.

### **...What About Medical Marijuana for Other Medical Conditions?**

There are various medical conditions where medical marijuana is warranted. For example, if your healthcare provider has prescribed marijuana for the treatment of chronic pain, inflammation, multiple sclerosis, nausea or various other conditions, you should weigh the pros and cons of the medical treatment. You may also choose to look at the various delivery mechanisms of medical marijuana —perhaps smoking it may not be the ideal delivery, but CBD or an edible may be preferred.

The bottom line is this: there is much we do not know about marijuana. If you have a chronic lung condition such as asthma, you should have a conversation with your prescriber about using it.