



CANNABIS AND LUNG HEALTH

The most common way to consume cannabis is through inhalation.¹ Current and ongoing research shows that chronic cannabis smoking can lead to a variety of adverse effects on lung function.¹

What is released when cannabis is combusted?

Cannabis has many of the same toxins, irritants, and carcinogens that are in tobacco smoke, including:¹

- Tar
- Nitrogen Oxide
- Hydrogen Cyanide
- Aromatic Amines
- Carbon Monoxide

Short-term Effects

Research shows that, at first, inhaling cannabis (and specifically THC, the psychoactive chemical in cannabis) may cause the airway muscles to relax.¹

However, THC has the opposite effect on airways that are already relaxed. Continued or chronic use, therefore, is associated with narrowing of the airways which could lead to a variety of common concerns.¹



Common Concerns

Frequent, chronic cannabis users are 2 to 3 times more likely to develop the following symptoms than non-smokers:^{1,2}

- Coughing
- Wheezing
- Production of excess mucus
- Shortness of breath
- Chest tightness
- Hoarse voice

Inflammation, Injury, and Infection

Bronchitis is when the airways that lead to the lungs become inflamed and filled with mucus. Cannabis smokers have higher rates of acute bronchitis and report more symptoms of chronic bronchitis than those who do not smoke.^{1,2}

In addition to inflammation, smoking cannabis can also irritate and injure the airway, making it more susceptible to infection.^{1,2}



Did you know?

It is a commonly held belief that deep and long inhales lead to stronger highs. However, holding in the cannabis smoke has no real effects on THC absorption. In fact, doing so increases the amount of toxins that settle into the lungs.³

Respiratory infections typically pass by way of droplets. Therefore, sharing cannabis smoking devices may also make the transmission of airborne diseases more likely.⁴

Secondhand cannabis smoke can pose similar risks to lung health.⁵ Cannabis use can also aggravate asthma in those living with this condition.⁴



Ways to Reduce the Harm

Delay use until 25 to reduce effects of cannabis on the developing brain.

When smoking cannabis, do not hold the smoke in your lungs for a long period of time. Wait at least 20 minutes until you take another hit.

Avoid sharing cannabis products such as joints, bongs, or pipes, with others. Keep equipment clean and wash your hands frequently.

Avoid consuming in closed spaces, public spaces, or in close proximity to others, especially those with respiratory conditions.

If you choose to consume cannabis, consider the following:

- using less frequently
- reducing the amount used
- opting for non-inhalation methods

References

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3. Zacny, J. P., & Chait, L. D. (1989). Breathhold duration and response to marijuana smoke. *Pharmacology, biochemistry, and behavior*, 33(2), 481–484. [https://doi.org/10.1016/0091-3057\(89\)90534-0](https://doi.org/10.1016/0091-3057(89)90534-0)
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5. Secondhand Cannabis Smoke [infographic]. Youth Cannabis Awareness Program (2022). <https://youthcannabisawareness.ymcagta.org/resource-hub>