



# WHAT TO KNOW ABOUT VAPING CANNABIS



## What We Know About Vaping (So Far)

Some research suggests that vaporized cannabis may be a safer alternative to smoking because it releases less chemicals and toxins.<sup>2</sup> Although the chemicals found within vaping products differ from smoked products, they are still harmful to our health.<sup>1</sup> Vaping cannabis can lead to similar health effects to smoking including respiratory effects like chest pain, coughing, and shortness of breath.<sup>1</sup>

Damage or illness to the lungs may result from the toxic ingredients found in cannabis e-liquids including flavoring chemicals and chemical additives used to dissolve cannabis into a liquid.<sup>1</sup>

Vape concentrates in particular contain higher potencies of THC, the chemical in cannabis causing psychoactive effects, which has been associated with mental and physical health conditions, such as:<sup>1</sup>

- Paranoia
- Psychosis
- Dependency
- Heightened stress or anxiety
- Cannabinoid hyperemesis syndrome (severe vomiting associated with regular, long-term cannabis use)

Research into cannabis vaping is still undergoing significant development to better understand the potential long-term health risks.

## Vaping

Vaping is the inhalation of an aerosol that is produced when heating solid or liquid cannabis products.<sup>1</sup> Dried leaf cannabis and cannabis concentrates (rosin, wax, shatter) can both be consumed using vaping devices.

Different accessories can be used to vape cannabis including a vape pen, e-liquid vaporizer or e-liquid pod.





## Additional Risks

Both cannabis and nicotine can be used through vape devices, which may lead youth to use these substances together. Cannabis and nicotine have addictive properties and co-use can increase the risk of experiencing dependence and withdrawal symptoms.<sup>1</sup>

Additionally, interested youth who are under the legal age may turn to illegal sources to acquire cannabis products and vape accessories. Illegal or unregulated sources pose greater health risks, as products may have higher potencies of THC that may lead to over-intoxication. Furthermore, illegal vapes can contain toxic contaminants/materials (i.e., Vitamin E acetate, plastic or Teflon device materials) that may result in severe lung illnesses.<sup>1,3</sup>

## Harm Reduction Strategies For Vaping

1. Youth under 25 should avoid/limit use of vapes to protect brain development
2. Choose to vape dried leaf cannabis products with lower THC amounts (<15%) to reduce the risk of over-intoxication and dependency
3. Avoid vapes from the illegal market
4. Avoid vapes made with plastic or Teflon materials
5. If you choose to vape, start with a small inhalation and wait 20 mins between puffs

### References

1. Chadi, N., Minato, C., & Stanwick, R. (2020). Cannabis vaping: Understanding the health risks of a rapidly emerging trend. *Paediatrics & child health*, 25(Suppl 1), S16–S20. <https://doi.org/10.1093/pch/pxaa016>
2. Government of Canada (n.d). Summary of results for the Canadian Student Tobacco, Alcohol and Drugs Survey 2018-19. Summary of results for the Canadian Student Tobacco, Alcohol and Drugs Survey 2018-19 - Canada.ca.
3. Alberta Gaming, Liquor and Cannabis (n.d) CannabisSense: Buy Legal. <https://www.canada.ca/en/health-canada/services/cannabis-regulations-licensed-producers/packaging-labelling-guide-cannabis-products/guide.html>
4. Fischer, A. S., Tapert, S. F., Lee Louie, D., Schatzberg, A. F., & Singh, M. K. (2020). Cannabis and the Developing Adolescent Brain. *Current treatment options in psychiatry*, 7(2), 144–161. <https://doi.org/10.1007/s40501-020-00202-2>

## Myths and Facts About Vaping

Vaping is the most common method to consume cannabis among youth in Canada.

### Myth

Smoking is the most common method to use cannabis across all age groups. Vaping is the 3rd most common after cannabis edibles.<sup>2</sup>

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Youth are vaping cannabis at higher rates than adults.

### Myth

Youth and adult rates of vaping are similar, although youth rates have been climbing in recent years. Youth vaping rates raised from 30% in 2016-2017 to 42% in 2018-2019.<sup>2</sup>

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Vaping cannabis concentrates or high THC potency products increase the risk of functional and structural brain impairments, especially for youth under 25.

### Fact

Higher levels of THC poses greater risks to the brain's healthy development and may lead to impairments in areas responsible for learning, attention, judgement, and memory.<sup>4</sup>