

What we know about the health risks of vaping



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In the U.S., the Centers for Disease Control and the Food and Drug Administration have been investigating recent cases of pulmonary illness associated with vaping products; currently there are reports of over 800 cases and 13 deaths.

All reported cases have a history of e-cigarette use or vaping product use. Most cases have reported:

- using e-cigarette products containing THC
- using e-cigarettes containing nicotine
- using vaping products containing both THC and nicotine

No e-cigarette or vaping product (i.e. devices, liquids, refill pods, and/or cartridges), substance or additive has yet been linked to all the cases of pulmonary illness.

While there are no known deaths in Canada, the Middlesex-London Health Unit has reported one case of severe pulmonary illness linked to vaping in a teenager;¹ Quebec has declared its first case of severe pulmonary illness linked to vaping in a patient in his or her 50s.²

Regarding vaping-related pulmonary illness, it remains unclear if it is specific to a certain product and not enough is known about this disease. More investigation is required.

Whatever the outcome of those investigations, the general risks associated with vaping remain an ongoing concern. Vaping is not without risk, and the potential long-term effects of vaping remain unknown. Non-smokers, people who are pregnant and young people should not vape.²

Recent Research³

Recent research suggests that:

- There is limited evidence that e-cigarettes are effective at helping smokers quit smoking.
- E-cigarette use is associated with an increased risk of smoking and increased intensity of smoking among youth.
- Second-hand aerosol from e-cigarettes emits harmful compounds, including nicotine and particulates that may pose risks to bystanders.
- The use of nicotine salt products combined with the increase in e-cigarette availability, advertising and promotion is contributing to the dramatic increase in vaping among youth.
- Advanced tank systems can produce more and hotter aerosol and may deliver nicotine more effectively and consistently than earlier generation e-cigarettes.
- Increased measures to protect youth are essential in order to avoid a generation of youth who are addicted to nicotine.
- Nicotine exposure during adolescence causes long-term structural and functional changes in the brain. It can harm cognitive functions like working memory and attention span. Teenage brains are also much more sensitive to nicotine than adult brains and become addicted much faster.

WDGPH is taking a prevention-focused approach to vaping by focusing on youth. To help prevent vaping among youth, WDGPH has been providing evidence-based feedback on Health Canada's vaping policy consultations. WDGPH has also distributed e-cigarette resources to teachers and parents to support classroom teaching and conversations with youth and is developing a vaping awareness campaign targeting high school students.

On September 18, Ontario's Minister of Health, Christine Elliot, announced an Order under the *Health Promotion and Protection Act* requiring public hospitals in Ontario to provide the Chief Medical Officer of Health with statistical, non-identifying information related to the cases of pulmonary illnesses linked to vaping.⁴ WDGPH is also asking local physicians to report possible cases of severe pulmonary illness to the health unit.

References

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