

EVIDENCE BRIEF

A resource to help guide decision-making for
Canadians who use nicotine

Nicotine is an addictive substance that can be difficult to quit. No nicotine use is considered completely safe and the use of nicotine is discouraged. However, nicotine use is a personal choice. The Lower-Risk Nicotine Use Guidelines (LRNUG) present the current state of evidence and highlight modifiable behaviours that can help reduce the negative health outcomes associated with nicotine use.



Who are the LRNUG for?

The LRNUG are a health education and prevention tool for:

- Anyone who currently uses, or who is considering using any type of nicotine product(s).
- Any professional, organization or government aiming to improve the health of Canadians who use nicotine.

How were the LRNUG developed?

A comprehensive literature search with a focus on nicotine products and selected health outcomes was completed up to January 2021. The full table of included references is available in the Executive Summary. The Guideline Development Group (GDG), made up of 14 experts in the nicotine field from across Canada convened for an in-person meeting to develop the Recommendations found on page 2 of this document. The GDG was responsible for assessing the quality of the literature, and voting on the language used to create the Recommendations.

The LRNUG have been endorsed by the following organizations:



Centre
for Effective
Practice

Production of the Lower-Risk Nicotine Use Guidelines has been made possible through Health Canada's Substance Use and Addictions Program. These materials do not necessarily reflect the views of Health Canada.

**If you choose to use nicotine, learn how
to reduce risks to your health, here.**

E-CIGARETTES

People who do not use any tobacco products should not use e-cigarettes because of the high risk of addiction and potential physical health harms. E-cigarettes are less harmful than combustible tobacco, but are not completely harmless. In addition to the known effects of nicotine, most e-cigarette products contain and emit substances with unknown harms when inhaled.

People who switch from combustible tobacco to e-cigarettes will reduce their exposure to numerous toxicants and carcinogens.

Switching completely to e-cigarettes will significantly reduce exposure to numerous toxins and cancer causing chemicals and thus the harms associated with smoking tobacco.

People who are currently using e-cigarettes should stop or switch to safer forms of nicotine such as NRT. The long-term health effects of e-cigarette use are unknown. There is some evidence that e-cigarettes can cause negative health effects such as cough and mouth and throat irritation, as well as potential negative pulmonary, cardiovascular, and respiratory effects.

For people who use combustible tobacco products and cannot quit by other means, e-cigarettes may be a lower risk alternative. When choosing a vaping product, consider the following:

- Do not purchase illicit/black market e-liquids, pods, or devices;
- Do not adulterate your products (with THC, vitamin E/other oils, etc.) or modify the device;
- Follow instructions on use, charging, cleaning and disposal of the device

CESSATION

People should try and quit using approved smoking cessation treatments first, but if they are unable or unwilling to quit, e-cigarettes with nicotine may be an effective cessation aid for people who use combustible tobacco. Smokers should be advised to switch completely from combustible tobacco to e-cigarettes and to use e-cigarettes when they would normally have smoked.



There is substantial evidence that e-cigarettes with nicotine are addictive. Use of high-dose nicotine salts may increase risk of addiction. **Use of e-cigarettes with nicotine should be discouraged among non-smokers due to risk of addiction.**

ADDICTION

OTHER NICOTINE PRODUCTS

Use of Smokeless Tobacco (SLT) is associated with serious health risks including increased risk of oral, pharyngeal, and esophageal cancers, and increased instance of fatal ischemic heart disease and stroke. **Use of SLT should be discouraged.**

Heated Tobacco Products (HTP) may reduce exposure to some but not all harmful and potentially harmful compounds when compared to conventional cigarettes. However, these products still pose serious health risks, and harm to those exposed second-hand. **Use of HTP should be discouraged.**

Water-pipe smoking is associated with various cancers and cardiovascular disease. There is strong evidence that water-pipes also pose serious health risks to those exposed to second-hand smoke. **Water-pipe smoking should be discouraged.** Water-pipes should be smoked outdoors away from public spaces where others are exposed.

REPRODUCTIVE HEALTH

Use of SLT, HTP, water-pipes, and e-cigarettes should be discouraged in women who are pregnant. They should be encouraged to switch to NRT to reduce possible harms. If unable or unwilling to quit, pregnant women should be advised to reduce the frequency of use and the concentration of nicotine. Despite lack of evidence, e-cigarettes may reduce some risk for women who are pregnant.

