



First Nations Health Authority
Health through wellness

E-cigarettes: What you need to know to stay healthy



WHAT ARE E-CIGARETTES?

E-cigarettes are battery-operated devices that electronically heat a **solution** to produce a vapour that is inhaled. Like regular cigarettes, it is best to avoid using them.

There are many different types such as:

- » Cigalikes
- » Vape pens (vapes)
- » Advanced tank systems
- » Pod Vapes

WHAT'S IN THEM?

Solution: also called “e-liquid,” “e-juice” or “vape juice,” the solution is made up of propylene glycol or glycerine, water, flavourings and may contain nicotine. Flavourings are generally safe for eating but the risks associated with breathing them into your lungs are unknown.

Vapour: Once the solution is heated, a vapour or aerosol is created and this may contain:

- » **Particles:** many studies have found particles in e-cigarettes at levels comparable to that of tobacco smoke.
- » **Metals:** lead, chromium, nickel, copper, aluminum, and mercury, which can negatively affect your health (see below).
- » **Tobacco-specific nitrosamines (TSNAs):** these cancer-causing compounds are considered the most dangerous of all the chemicals found in e-cigarettes.
- » **Carbonyls:** including formaldehyde, acetaldehyde, and acrolein, which are potential human carcinogens (i.e., cause cancer).

WHAT'S THE DANGER OF USING E-CIGARETTES?

Breathing in the vapour particles, even from second hand vapour, may increase the risk of heart disease, lung cancer and asthma attacks and interfere with lung function.

Exposure to metals can have a variety of adverse health effects including brain damage and cancer.

Some studies indicate that use of e-cigarettes may increase the potential of smoking conventional cigarettes.

The flavours are attractive to youth, and may put them at a risk of becoming addicted to nicotine products.

Many products are unregulated and there's no way to know what you are actually breathing into your lungs.

Research has shown that many products which claim to have "no nicotine," actually do contain nicotine!

QUITTING SMOKING?

Although some may have chosen vaping as a way to reduce or quit smoking conventional cigarettes, there are no concrete studies proving this is an effective approach. Please be aware that although there are fewer chemicals in the nicotine solution, the chemicals are still harmful to the delicate tissues in the lungs and the long term effects of using these products are still unknown.

Remember:
**Fresh air is always best
for your lungs!**

This industry is constantly changing so at the time of this publication, there may be a variety of new products out there. This is a general summary of what's on the market today.

*The First Nations Health Authority created the Respecting Tobacco Program to help communities reduce commercial tobacco use and build knowledge about tobacco as a sacred medicine. Many people are not aware that commercial tobacco (*Nicotiana Tabacum*) used for making addictive products is not the same as traditional tobacco (*Nicotiana Rustica*). The nicotine extracted from the Tobacco plant is used to make e-juice and nic salts used in e-cigarettes and vapes. There is also a synthetic version of nicotine used for these products.*

Sources: Health Canada, Truthinitiative.org, Public Health Ontario