

VAPING PRODUCTS

INFORMATION FOR TEACHERS



Vaping among youth is becoming widespread and an issue in schools. This growing popularity is due to increased availability, a variety of appealing flavoured products and the enhanced design and technology of newer vape devices. Increased experimentation and regular use of vaping products among youth is a concern among educators and public health officials.

Teachers are in a great position to provide information about the adverse health effects of vaping to students and their families. This resource provides evidence-based information to help you inform students about the known and unknown risks of vaping products.

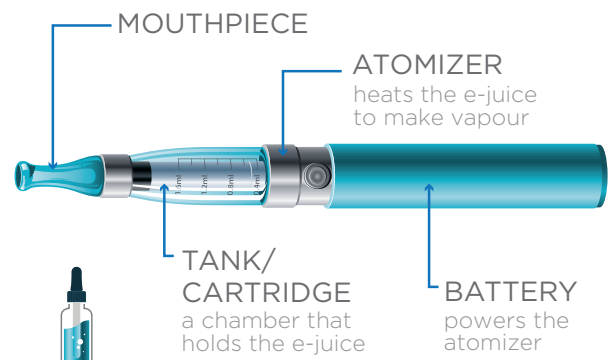
VAPING PRODUCTS AND HOW THEY WORK

Vaping products, such as e-cigarettes and vape pens are battery-powered devices that heat a liquid solution to create an aerosol (vapour or cloud). The e-juice (vaping liquid or e-liquid) inside a chamber typically

contains a solution of propylene glycol (PG)* and/or vegetable glycerin (VG)*, flavourings, and varying amounts of nicotine. The act of inhaling and exhaling an aerosol produced by a vaping product is commonly referred to as “vaping.” When vaping popular brands (JUUL or Breeze), the terms “Juuling” or “Breezing” are also sometimes used.

*PG and VG are industry acronyms

VAPING PRODUCT COMPONENTS



E-JUICE
usually contains nicotine and other chemicals

- Atomizer is also known as cartomizer or clearomizer
- E-juice is also known as vaping liquid or e-liquid

MONITORING YOUTH VAPING TRENDS

The Canadian Tobacco, Alcohol and Drugs Survey (CTADS), and Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) collect data on e-cigarette use among youth.

They captured both the percentage of youth who have “ever tried” e-cigarettes and the percentage of youth who used e-cigarettes in the past 30 days. Past 30 days use implies regular use as opposed to one-time experimentation.

Both data sets show an increase of e-cigarette use among youth in Canada.

YOUTH VAPING TRENDS IN CANADA

There has been a shocking negative behaviour trend among Canadian youth. Those that are of particular concern are youth aged 16-19. According to a recent study, this group showed an increase of 74 per cent in prevalence of vaping within just one year.

Specifically, in 2017, this age group reported vaping prevalence of 8.4 per cent; while in 2018 the same group reported 14.6 per cent prevalence.



REASONS WHY YOUTH VAPE

Below are some of the reasons youth vape:

- Appealing flavours (e.g. fruit, candy)
- Trendy devices
- Fitting in with their friends
- Curiosity and/or boredom
- They think vaping is harmless
- They like the “hit” they get from nicotine; it activates feelings of pleasure
- It makes them feel rebellious; some vape in places they are not allowed as it is easy to hide the vaping device
- To quit or cut down on smoking



HEALTH RISKS

Vaping impacts health. The toxic chemicals in the aerosols, some of which are carcinogenic, can lead to short-term and long-term health effects. In the short-term, vaping can lead to coughing and wheezing, inflammation of the lungs and increased heart rate.

The long-term health effects of inhaling vaping aerosol are currently unknown. Studies suggest that vaping could lead to similar diseases as smoking, though at a reduced rate. The health impacts continue to be studied.

In addition, lithium-ion batteries in vaping products can explode, causing injury and fires. Careful use, storage, handling and charging of batteries can reduce this risk.



ABOUT NICOTINE

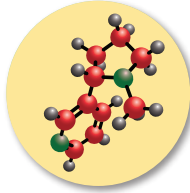
Nicotine is a chemical found naturally in tobacco leaves and is present in most e-juice.

Nicotine causes addiction and physical dependence. When the aerosol is inhaled, nicotine quickly reaches the brain. It triggers feelings of pleasure.

Over time, the user develops a tolerance and higher amounts of nicotine are needed to achieve the same feelings.

The brain continues to develop until approximately the age of 25. Nicotine use during youth can impair parts of the brain that are responsible for memory, mood, concentration and impulse control.

Nicotine also causes increased heart rate, blood pressure and constriction of blood vessels, among other effects.



FLAVOURINGS

Canada banned flavoured tobacco products in an attempt to reduce the appeal to youth. However, many flavourings are still permitted in vaping products.



There are currently more than 7,000 flavours on the market.

Flavourings are added to improve the taste of the vapour and make vaping more appealing.

VAPING VS. SMOKING CIGARETTES

For people who smoke, vaping may be a less harmful alternative to traditional cigarettes. The vapour contains fewer toxic chemicals than tobacco cigarettes. Despite this, inhaled vapour is not harmless. Youth often view smoking as unhealthy, smelly or nasty, but do not think of vaping the same way.

However; vaping - especially at an age when the brain is not yet fully developed - can be harmful. Vaping is not a safe or harmless choice for youth.

VAPING FOR SMOKING CESSATION

In 2018, Health Canada legalized nicotine-containing vaping products to allow access for adults as a cessation tool. Though vaping may be a less harmful alternative to smoking, its effectiveness as a cessation tool is yet to be determined.

Healthcare providers recommend nicotine replacement therapy (NRT) or prescription medications, along with behavioural support/counselling for tobacco cessation. Nicotine replacement therapy (patch, gum, lozenge, inhaler or mouth spray) is available at pharmacies and has been proven to be effective.

Those who are considering vaping as a cessation tool, should be aware of the potential harms. They should also be cautioned against “dual use” of both vaping and tobacco products. This is a frequently reported practice and may keep them smoking longer or in bigger quantities than intended.

DOES VAPING LEAD TO SMOKING?

There is a danger of vaping re-normalizing smoking behaviour.

Although more research is still needed, there is some evidence that youth who vape are more likely to smoke traditional tobacco cigarettes than those who don't.



VAPING CANNABIS

Cannabis can be vaped as a dried flower or in concentrate forms such as wax and hash oil. Most devices are not compatible for use with various substances.

The vaping devices that can be used for cannabis do not produce the distinct smell that comes from smoking cannabis.



LEGISLATION TO PROTECT YOUTH

Canadian and international public health organizations recommend legislation to restrict marketing to youth as well as uphold or enhance existing smoking regulations.

Federal Legislation

Health Canada's Tobacco and Vaping Products Act (TVPA) was enacted on May 2018 to regulate the manufacture, sale, labelling and promotion of tobacco and vaping products. This federal act:

- Prohibits the sale of vaping products to those under 18 years of age
- Prohibits promotion of vaping products that are appealing to youth, such as candy and dessert flavours

Some provinces have put further restrictions in place, including:

- Raising minimum age to 19
- Regulating store displays
- Banning the use of vaping products in all public spaces where tobacco smoking is banned.

Information credit:
The Lung Association - British Columbia,
Fraser Health and Vancouver Coastal
Health