VAPING 101

INFORMATION FOR **EDUCATORS**

HELP US INFORM YOUTH AND FAMILIES ABOUT THE RISKS OF VAPING

Vaping among youth is becoming widespread and is an issue for many of our schools. Educators and public health officials are concerned about vaping as more and more youth are experimenting with or regularly using vaping products.
The surging popularity of these products is thought to be due to: increased availability, a variety of appealing flavoured products, and the enhanced design and technology of newer vape devices.

How you can help
Educators and other adults have an important role to play in helping inform youth about smoking and vaping. As a teacher, you can provide unbiased information to students and families about the potential risks of vaping.

The PEI Lung Association's online toolkit provides you with evidence-based information to help you inform students of the known and unknown health risks associated with vaping products.

For more information, resources and tools, visit: www.pei.lung.ca/vaping-prevention to download the Vaping Products Prevention Toolkit

WHAT IS VAPING?

Vaping products include e-cigarettes and vape pens. These products are battery-powered and heat a liquid (also called e-juice) held inside a chamber. When the user heats the liquid a vapour (or cloud) is created. The user then inhales the vapour into their lungs - this is called vaping. Juuling also means vaping. Youth often use these terms when vaping popular brands such as JUUL. [1]

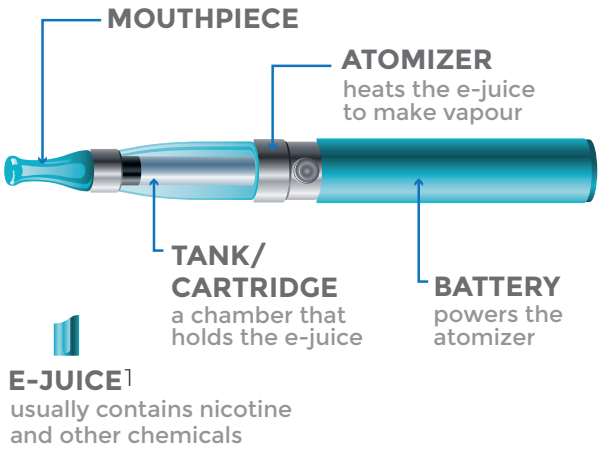
WHAT'S IN VAPING PRODUCTS?

Most vaping liquids (e-juice) typically contain:

- A solution of propylene glycol (PG is the industry acronym)
- Vegetable glycerin (VG is the industry acronym)
- Flavourings
- Nicotine

WHEN VAPING LIQUID IS HEATED, WHAT CHEMICALS ARE RELEASED?

- Nicotine
- A number of harmful chemicals, such as:
  - Heavy metals
  - Carbonyls
  - Tobacco-specific nitrosamines
  - Volatile organic compounds (VOCs)
  - Polycyclic aromatic hydrocarbons (PAHs)
  - Tiny particles1



YOUTH VAPING TRENDS IN PEI

The Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) collects data on e-cigarette use among youth. According to the latest results (2019), the number of PEI youth are using e-cigarettes is increasing.

- 39.3% of Island students reported 'ever trying' an e-cigarette). This 39.3% is the average of these amounts:
- 23% of students in grades 7 to 9
- 55.2% of students in grades 10 to 12

- 26.7% of Island students reported using an e-cigarette in the past 30 days. This 26.7% is the average of these amounts:
- 13.7% of students in grades 7 to 9
- 39.3% of students in grades 10 to 12 [2]

YOUTH SMOKING & VAPING TRENDS IN CANADA

According to a recent study, the number of Canadian youth aged 16 to 19, who have vaped within the past 30 days jumped from 8.4% in 2017 to 14.6% in 2018.

In that same timeframe, youth smoking rates jumped from 10.7% to 15.5%.

That is a 45% increase and a very worrying trend. [3]

REASONS WHY YOUTH VAPE

Evidence has shown there are many reasons why youth vaping, including:

- increased availability
- a variety of appealing flavoured products (e.g., fruit, candy, mint)
- trendy devices – vaping products have evolved with enhanced design and technology
- friends are vaping (they want to fit in)
- curiosity and/or boredom
- thinking vaping is harmless
- the "hit" they get from nicotine makes them feel pleasure
- a sense of rebellion - some vape in places they are not allowed as it is easy to hide the vaping device
- thinking vaping will help them quit or cut down on smoking. [1]

THE HEALTH RISKS OF VAPING

Vaping impacts your health. The toxic chemicals in the vaping liquid (e-juice), can lead to short-term and long-term health effects.

Potential short-term health effects of vaping
- coughing and wheezing
- inflammation of the lungs
- increased heart rate [1]

Potential long-term health effects of vaping
Studies suggest that vaping could lead to similar diseases as smoking, though likely at a reduced rate. Some of the ingredients in vaping liquid are known carcinogens (linked to causing cancer). [1]

Vaping is a new trend. For this reason, we don't have the research we need to fully understand the long-term health effects; however, studies are currently being done.

NEGATIVE HEALTH EFFECTS OF NICOTINE

Nicotine is highly addictive and causes physical dependence because it triggers the brain to feel pleasure. When vaping, nicotine reaches the brain rapidly. Over time, a tolerance is developed, and higher amounts of nicotine are needed to get the same level of pleasure.

Nicotine also causes increased heart rate, blood pressure, constriction of blood vessels, altered brain waves and muscle relaxation.

Children and youth are highly susceptible to the negative effects of nicotine as their brains are still developing. Our brains continue to develop until about the age of 25 years. Using nicotine-containing products (such as e-cigarettes) before the brain is fully developed can affect one's memory, mood, concentration and impulse control. [1]

RISK OF INJURIES OR FIRES

The batteries used in vaping products are made of Lithium-ion and can explode causing injury and fires. Proper use, storage, handling, and charging [1]

VAPING VERSUS SMOKING

Vaping is not a healthy choice for anyone who does not smoke.

Youth often view smoking as unhealthy, smelly or 'nasty,' but do not think of vaping in the same way.

For people who smoke, vaping may be a less harmful alternative to cigarettes. Vaping liquid (e-juice) contains fewer toxic chemicals than tobacco because it is not burned.

"Less harmful" does not mean vaping is harmless. [1]

VAPING TO QUIT SMOKING

Many people try vaping to quit smoking. However, we don't know if vaping actually helps people quit. However, e-cigarettes have not been approved as a smoking cessation aid in Canada. Studies looking into this are limited and no firm conclusions have been drawn.

Vaping, may in fact prolong smoking. People often report using vaping and tobacco products together. This practice may keep people smoking longer than they intended.

For quitting smoking, healthcare providers recommend:

- nicotine replacement therapy (NRT)
- prescription cessation medications
- behavioural support and/or counselling for tobacco cessation [1]

QUICK VAPING FACTS

- It is not harmless
- It is addictive
- Flavourings appeal to youth
- Easy to hide and use
- May look like a USB or flash drive
- Could recharge on a USB port
- Juuling or Breezing also means vaping

VAPING LEADING YOUTH TO SMOKE

Vaping products have the potential to normalize smoking. The research in this area is emerging and indicates youth who vape may be at an increased risk of using tobacco, compared to those who do not vape. Further research is needed to understand the relationship between the rise in youth smoking tobacco and the rise in youth vaping [4]

LEGISTLATION TO PROTECT YOUTH

In 2018, Health Canada legalized nicotine-containing vaping products to allow access by adults.

Since 2018, Canadian and international public health organizations have recommended legislation to restrict marketing to youth. They have also recommended that governments uphold or enhance existing smoking regulations.

Canada banned flavoured tobacco products to reduce the appeal to youth. However, flavourings are still permitted in vaping products. There are currently over 7,000 flavours on the market. Research commissioned by Health Canada found that 37% of teenagers said they started vaping because of the flavours. [5]

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

PROVINCIAL LEGISLATION

The Nova Scotia Tobacco and Electronic Smoking Device Sales and Access Act:

- Prohibits the sale of vaping products to those under 19 years of age.
- Regulates store displays of vaping products.
- Bans the use of vaping products in all public spaces where tobacco smoking is banned.
- As of April 2020, the sale of flavoured e-cigarettes and liquids is banned in Nova Scotia. [6]

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3. Hammond et al. (2019). Prevalence of vaping and smoking among adolescents in Canada, England, and the United States: repeat national cross sectional surveys. Retrieved from: http://davidhammond.ca/wp-content/uploads/2018/03/2019-ITC-Youth-Vaping-BMJ-Hammond-et-al.pdf

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