Peel Region
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Vaping
background information for educators

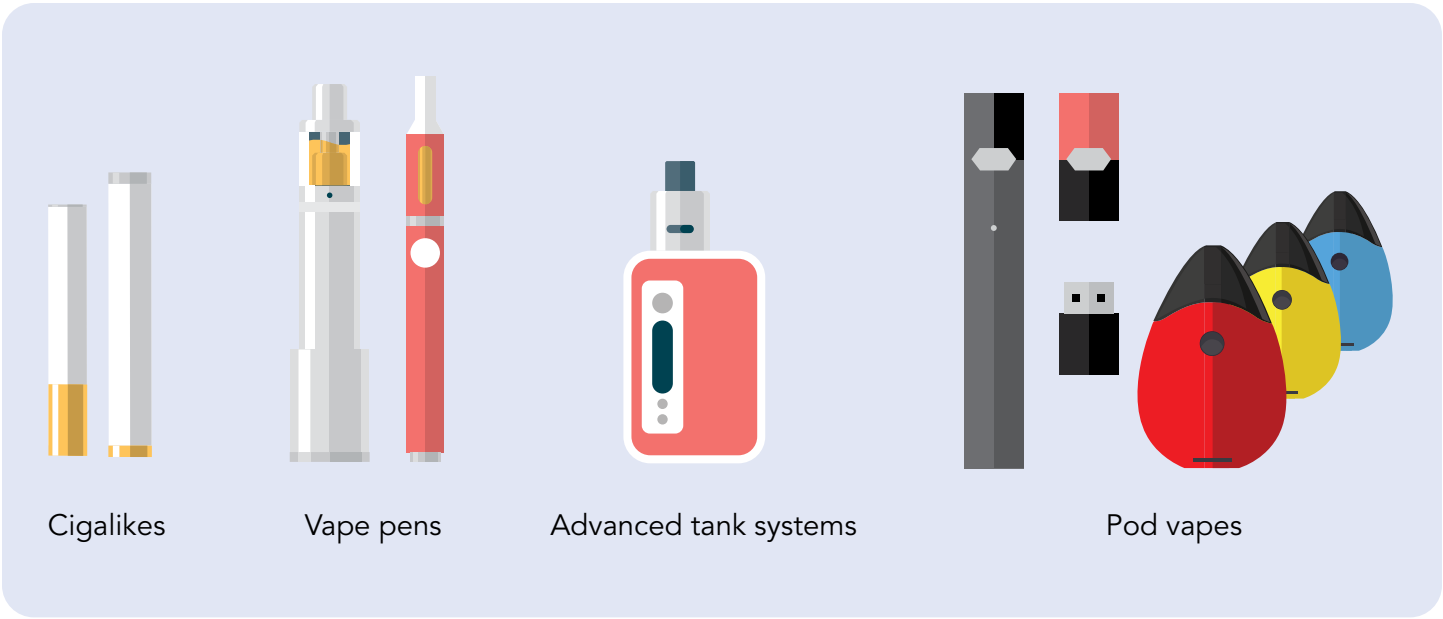
What is a Vape Product?

- Also known as: vapes, pens, pods, mod-pods, e-hookah, electronic cigarettes, electronic nicotine delivery systems (ENDS).
- Vaping products are devices that heat a liquid into an aerosol that is inhaled into the lungs.
- The liquid in a vape product, referred to as e-juice, contains a combination of ingredients, usually including nicotine, flavouring and other potentially harmful chemicals.

Types of devices

What do e-cigarettes look like?

The following are a few examples of different types of e-cigarettes.



Cigalikes | Vape pens | Advanced tank systems | Pod vapes

(Source: E-Cigarette, or Vaping, Products Visual Dictionary - US Department of Health and Human Services)

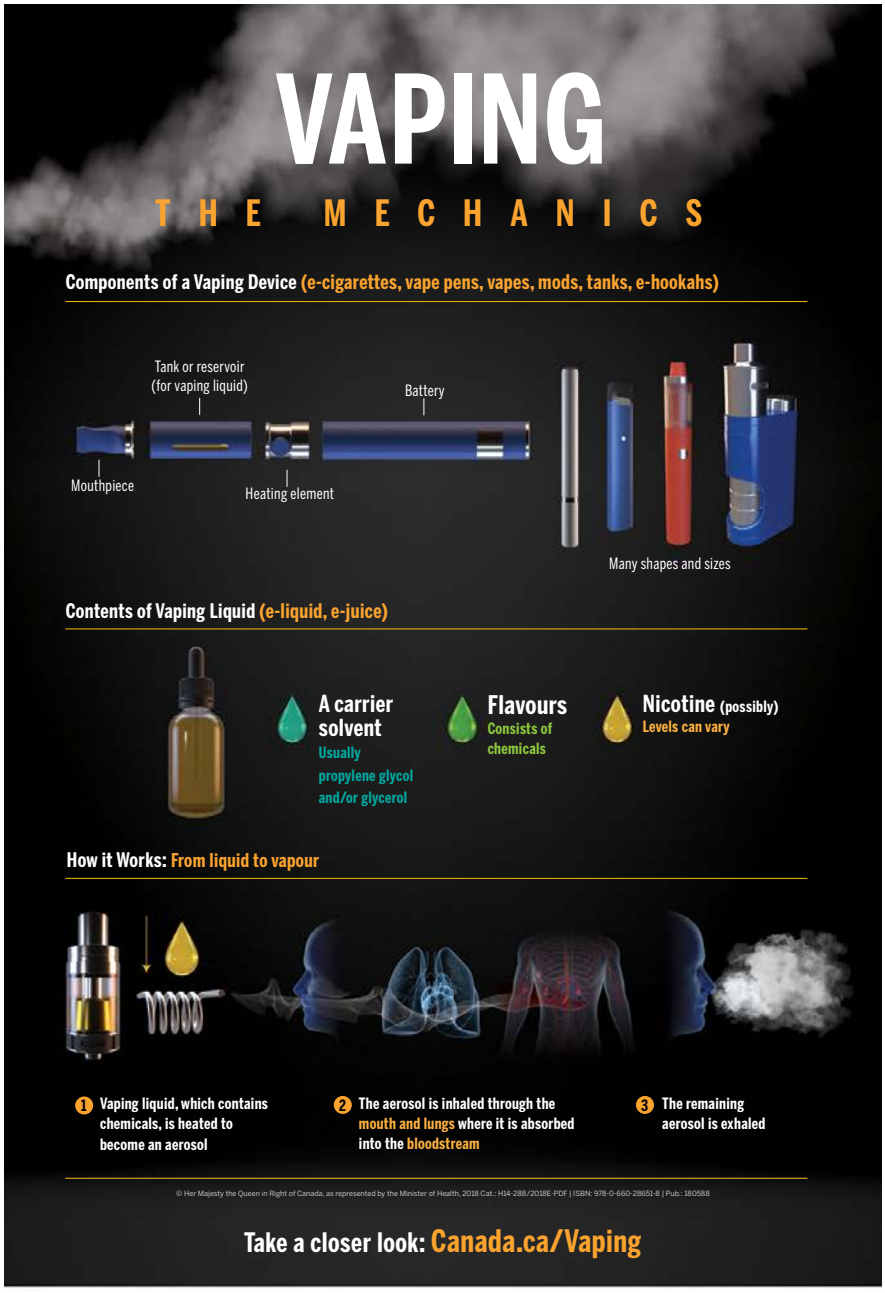
There are two kinds of vaping devices:

- **Open**
  - a device that is manually filled by adding vaping liquid into a tank or a pod, which is usually on the top of the device.
- **Closed**
  - a device with a disposable cartridge or pod that comes pre-filled with vaping liquid, which is thrown away after it runs out.
  - a single-use, disposable device that is ready to use and thrown away after it runs out of vaping liquid or loses its charge.

References:
About Vaping - Health Canada

What is vaping?

- Vaping is the act of inhaling and exhaling an aerosol produced by a vaping product. Vaping doesn't require burning like cigarette smoking.
- The device heats a liquid into a vapour, which then turns into an aerosol.
- Substances that can be vaped include liquid flavouring, freebase nicotine, nicotine salts, and cannabis.
  - **Nicotine** is the addictive chemical found in tobacco.
  - **Freebase nicotine** is nicotine that has been dissolved in a liquid mixture of chemicals.
  - **Nicotine salts** is nicotine that has been dissolved in a liquid mixture. Much like free-base nicotine products, these liquids contain chemicals and flavouring. Nicotine salts have high concentrations of nicotine.



Health Canada Santé Canada

Canada

References:

About Vaping - Health Canada

Why is youth vaping a concern?

Nicotine addiction

- The developing brain is more susceptible to nicotine addiction, especially with early exposure. This can lead to nicotine dependence, reduced impulse control, cognitive behavioural problems, and affect memory and concentration. **In Canada some vape pods can contain as much nicotine as a package of cigarettes.**

Unknown long-term health effects

- The act of vaping can expose the user to chemicals and heavy metals such as nickel, tin, and aluminum - which are toxic to the lungs.
- The aerosol that users breathe from the device and exhale can contain potentially harmful substances.
- Evidence is still emerging as to the long-term health effects of vaping, which is even more reason for youth not to vape. It took 20 to 30 years before cigarettes were known to cause cancer.

Accidental injury or ingestion

- Vaping liquid containing nicotine is poisonous if swallowed, especially for young children.

References:
Youth Health Trends- Vaping - Public Health Ontario

Vaping and stress

- Vaping may increase during periods of high stress (e.g., studying for exams), but it is not an effective coping tool.
- While vaping, nicotine reaches the brain causing dopamine to be released, creating a sense of pleasure and temporary feeling of perceived stress relief. However, it soon gives way to withdrawal symptoms and increased cravings. After vaping, the body responds by increasing blood pressure and heart rate, tensing muscles, resulting in less oxygen being available to the body and brain.

Some healthier ways to cope with stress include:

- Exercising
- Eating healthier food
- Talking with friends, family, even a pet
- Enjoying something that brings laughter
- Prioritizing sleep (9–11 hours of sleep/night for children ages 5–13 years old, and 8–10 hours of sleep/night for children 14–17 years old)

References:
Mental Health & Vaping - Not an Experiment
Canadian 24-Hour Movement Guidelines for Children and Youth (ages 5-17 years)

Why youth might vape

- Recreation and curiosity
- Stress reduction
- Addiction to nicotine
- Sensory/behavioural gratification: Vaping provides a perceived calming effect, head rush, and burning throat sensation that some youth report as enjoyable.
- Enjoyment of flavours: Youth report higher interest in menthol, candy, or fruit flavours over tobacco-flavours.
- Peer influence

Did you know?

Industry tactics

Although the vaping industry claim they do not market their products to youth, they employ many of the tactics that the tobacco industry previously used to push their products. Some of these tactics include creating a buzz on social media, sponsoring music festivals and special events, and introducing products with appealing flavours, catchy names or fun labels.

Local laws

- **In Ontario, it is prohibited to:**
  - sell or supply tobacco products or accessories to anyone under 19 years old.
  - smoke or vape on school and child care properties, and within 20 metres of any point on the perimeter of the facility.
  - smoke or vape with a person under 16 years old in the car.
- **In Peel, it is prohibited to:**
  - smoke or vape any substance in outdoor public places, municipal properties and construction sites.
  - smoke or vape within 9 metres of any indoor public space and workplace.

Environmental impacts

Vaping products are harmful to the environment too.

- Vape products generate hazardous waste, containing several compounds and chemicals.

References:
Industry Interface - Truth Initiative
The Smoke-Free Ontario Act 2017
No Smoking and Vaping in Outdoor Public Places and Workplaces By-law 49-2019
Post-Consumer Waste of Tobacco and Vaping Products - Public Health Ontario

Myths and facts

Myth	Fact
"Vaping isn't bad for you."	Known and emerging evidence suggests otherwise. • The act of vaping exposes the user to chemicals and heavy metals such as nickel, tin, and aluminum which are toxic to the lungs. • Vaping e-liquid nicotine can result in nicotine addiction. • The developing teenage brain is more susceptible to nicotine addiction, especially with early exposure. This can lead to nicotine dependence, reduced impulse control, cognitive behavioural problems, and affect memory and concentration. **In Canada, some vape pods can contain as much nicotine as a package of cigarettes.** (youth-health-trends-vaping.pdf | publichealthontario.ca) • There is evidence that e-cigarette use can increase the risk of smoking cigarettes among youth and young adults.
"Vaping is better than smoking cigarettes."	Compared to combustible cigarettes, vapes produce less chemicals and at lower levels. Switching completely from smoking cigarettes to vaping will reduce a current cigarette smoker's exposure to many toxic and cancer-causing substances. However, the long-term safety of inhaling the chemicals from vaping products is unknown. • Evidence shows that youth who vape are more likely to start smoking conventional cigarettes, which further increases their health risks. (Correlates of Vaping among adolescents in Canada - Statistics Canada) • Neither vaping or smoking cigarettes are safe for youth.
"Vaping devices only create water vapour."	Vaping does not produce water vapour. The aerosol that users inhale from the device and exhale can contain potentially harmful substances. This includes nicotine, ultrafine particles that can be inhaled deep into the lungs, flavourings, volatile organic compounds, cancer-causing chemicals and heavy metals such as nickel, tin, and lead. • The effects of breathing in second-hand aerosols are still unknown. (Health Effects of Vaping | Smoking and Tobacco Use | CDC)
"All my friends are vaping."	Although there has been a recent rise in vaping, the truth is not all youth are vaping. • Vaping products are currently being marketed to young people by the tobacco industry. • Vaping devices are often advertised on social media platforms, portraying young people using their products, giving the impression that "everyone" is vaping and it is cool.

Statistics on vaping

- Peel Public Health: Health Status Data - Region of Peel
- Ontario Student Drug Use and Mental Health Survey (OSDUHS) - CAMH

Related resources and supports

- EDUCATORS - Not An Experiment
- Vaping: What you and your friends need to know - CAMH
- Alcohol, tobacco, and other substances - Region of Peel
- WhereToStart.ca - Access to Mental Health Services for Children and Youth in Peel
- Kids Help Phone - Kids Help Phone answers common questions about smoking and vaping
- Smoker's Help Line - Canadian Cancer Society
- Quash - Lung Health Foundation - Smoking and vaping cessation app for youth

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