



Vaping and e-cigarettes

CHS Parent Council

October 20, 2021

**FIRST
TIME
CUSTOMERS**

receive an extra

**10%
OFF**

with code:
STARTVAPING


Big Tobacco



buying out vaping companies

- Less people smoking - vaping another option, or for some, a method of quitting smoking cigarettes
- Every aspect of the e-cigarette has been heavily studied for marketing



What do we need to know?



- Nicotine is a chemical found naturally in tobacco leaves and is present in most e-juice.
- Nicotine is usually found in the mechanism of the device.
- Over time, the individual develops tolerance and more and more frequent amounts of nicotine are needed to achieve the same feelings.
- Individuals can become psychologically addicted to the actual device.
- Vaping products are battery-powered and heat liquid to create an aerosol (not an actual vapour).
- Adolescents and children may become dependent on nicotine more rapidly than adults.

Risks

- Vaping can increase your exposure to harmful **chemicals**.
- Vaping can lead to **nicotine addiction**.
- The **long-term** consequences of vaping are unknown.
- It's rare, but defective vaping products (especially batteries) may **catch fire or explode**, leading to burns and injuries.
- Increased risk of stroke, heart disease, **reduced blood flow**, and for adolescents reduced connectivity in the brain.
- Alters **brain development** of adolescents, and can affect memory and concentration.
- Nicotine **withdrawal** symptoms can be unpleasant.



What is it?

- 1 - 4 mg cartridge = 20 cigarettes
- Vitamin E (acetate) is used to thicken or dilute (Acetate is **unsafe to inhale**)
- There is more acetate in some flavours
- Cartridges with standard 510 thread will fit on any standard 510 threaded battery
- Most batteries are breath pull, (inhale through the cartridge to activate the battery.)
- Others are button activated, (the individual heats the cartridge oil.

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

| TOXIC CHEMICALS | ALSO FOUND IN |
|--|------------------|
| Heavy Metals | Lead-based paint |
| Carbonyls | Embalming liquid |
| Tobacco specific Nitrosamines | Cigarettes |
| Volatile organic compounds (VOC's) | Gasoline |
| Polycyclic aromatic Hydrocarbons (PAH's) | Vehicle exhaust |
| Tiny particles | Wildfire smoke |

E-liquid or vaping liquid



- Can contain many food additives that are not approved for inhalation, including propylene glycol (PG), vegetable glycerin (VG), flavourings, and a varied amount of nicotine.
- Many individuals believe the aerosol is only water vapour, but because the e-juice is heated, it causes other toxic chemicals to be emitted including: heavy metals, carbonyls, nitrosamines, volatile organic compounds (VOC's), polycyclic aromatic hydrocarbons (PAH's), and tiny particles similar to what is found in wildfire smoke.
- The e-juice can be absorbed through the skin, which can cause poisoning.

Flavours



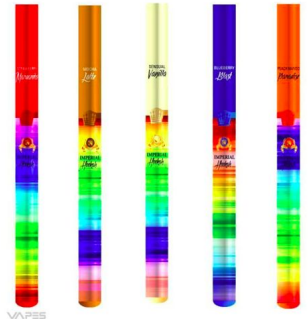
BUBBLE GUM



SWEDISH GUMMY

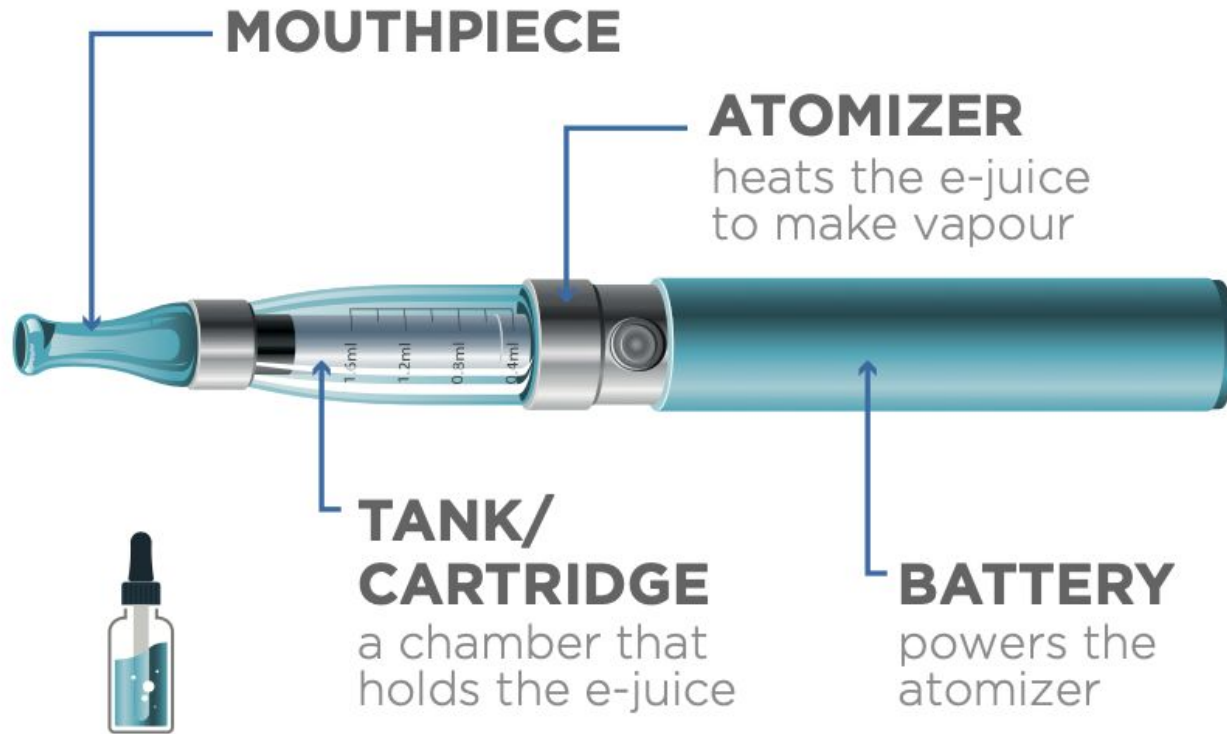
- Canada has banned flavoured tobacco products in an attempt to reduce the appeal to youth.
- However, many flavourings are still permitted in vaping products.
- There are more than 7,000 flavours on the market.
- Flavourings are added to improve the taste of the vapour and to make vaping more appealing.
- Even vaping without nicotine causes the release of chemicals.

Vaping devices were originally made to look like cigarettes, however, newer devices come in many shapes and styles.



Black Dazzling Silver Red Purple Blue





MOUTHPIECE

ATOMIZER

heats the e-juice to make vapour

**TANK/
CARTRIDGE**

a chamber that holds the e-juice

BATTERY

powers the atomizer

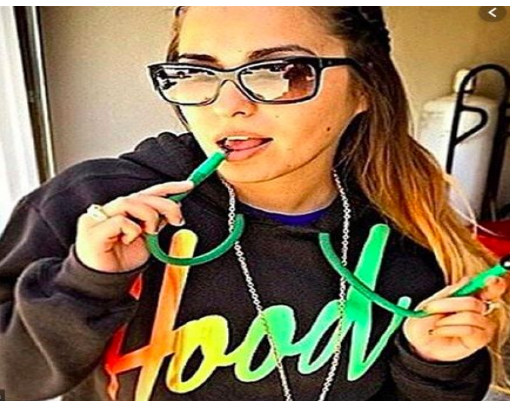
E-JUICE

usually contains nicotine and other chemicals

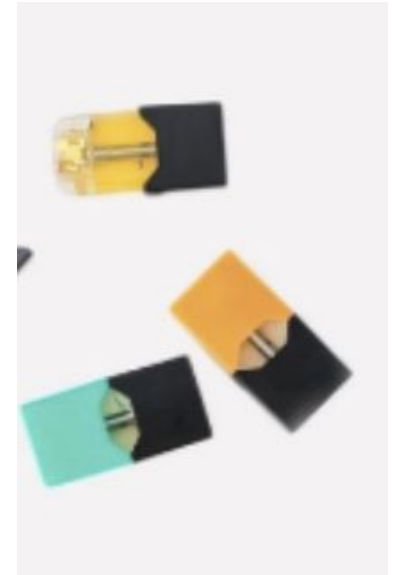
*The atomizer is also known as the cartomizer or clearomizer.

*E-juice is also known as vaping liquid or e-liquid.

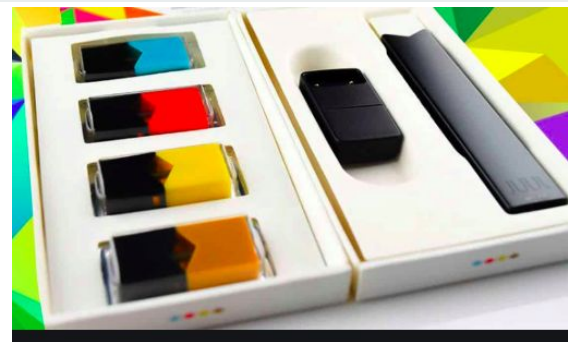
What to look for



Add-ons like vinyl "skins" or wraps can make these items hard to recognize.



*“Juul” and “Aspire Breeze” - common
Using device is “juuling” or “brezing.”*



Cases

SHUTTLE AVAILABLE IN A VARIETY OF FLAVORS (SOLD SEPARATELY)

LED LIGHT BAND

ANDROID KITKAT 4.4

PROPRIETARY VAPING APP



Second and third hand smoke



- What are second and third hand smoke?
- Nicotine, heavy metals and tiny particles have been found in second-hand vapour.
- Bystanders, including children and infants, can breathe in the vapour.
- Individuals who vape should avoid vaping around non-users.

Prevalence



- Problematic trend among Canadian youth aged **16-19** between 2017 & 2018.
- Increase of **74** per cent in prevalence of vaping within just one year.
- In 2017, 16-19 year olds reported vaping prevalence of **8.4** percent.
- In 2018 the same group reported **14.6** percent prevalence.
- Surveys captured 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.

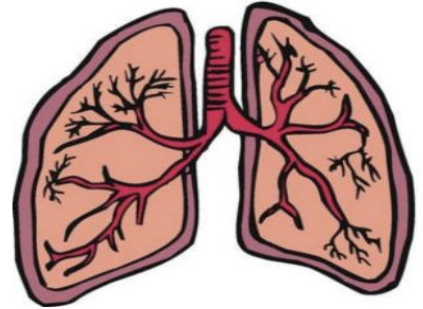
Prevalence

- **15.4** percent of children between the ages of **11 and 18** have tried e-cigarettes. (Cancer Society)
- Health Canada survey showed **23%** of students in grades 7-12 have tried an electronic cigarette. (Health Canada, 2019)



Prevalence

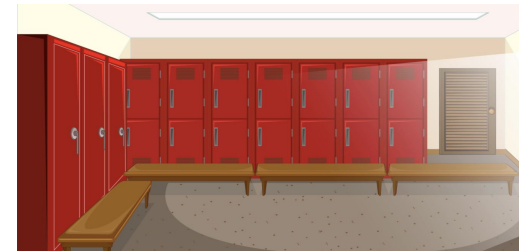
- The U.S. Centers for Disease Control and Prevention has documented **2,807** lung injury cases and **47** deaths associated with vaping.
- Canadian officials have confirmed **17** such cases with **0** reported deaths.



Problems for Schools

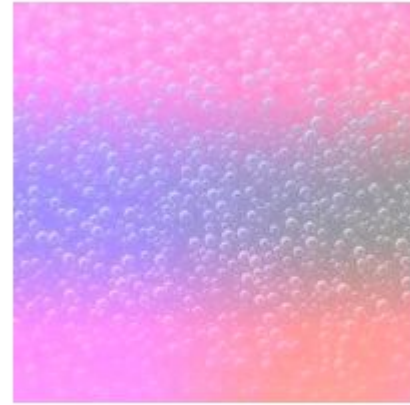


- Vaping generally doesn't leave a lingering identifiable smell.
- Newer vapes give off very little aerosol.
- The *Tobacco and Vaping Products Act* prohibits vaping products to be sold or given to anyone under the age of 18. Some provinces have increased the age to 19, however, students are still able to access it.
- Not legal on school property (including parking lots, locker rooms, bathrooms).



Why 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
- To quit or cut down on smoking
- They feel grown up



BERRY SODA

Vaping Cannabis



- Cannabis can be vaped as a dried flower or in concentrated 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 smell that comes from smoking cannabis.

HOW IS VAPING AFFECTING ME?

I thought
vaping
was safe.

Nicotine, the addictive substance in vape juice and cigarettes, can make it harder to cut back or stop vaping.

Research shows young people who vape are more likely to start smoking cigarettes.



| Do I depend on vaping? | |
|--------------------------|---|
| <input type="checkbox"/> | Vaping is impacting me and/or those around me. |
| <input type="checkbox"/> | When I don't or can't vape, I feel irritable, restless, anxious, sad, or tired. |
| <input type="checkbox"/> | I can't go for a day without vaping. |
| <input type="checkbox"/> | I have thought about vaping less or quitting. |

Here's where to find help:

If you answered "yes" to any of these items, you may want to ask for help about vaping issues.

What should I do if my adolescent is vaping?



Be patient and listen

- Avoid criticism and keep an open dialogue. Just because they haven't tried it yet doesn't mean they never will.
- Be aware - keep up to date.
- Don't lecture or embarrass your adolescent
- Thank them for being honest with you if they have tried vaping, or vape regularly.
- Offer to share some information about vaping, and discuss the benefits of being smoke- and vape-free.
- See your doctor for smoking cessation aids.
- Show compassion.
- Set a good example.

References



- Health Canada, (2019, July 8). *Talking with your teen about vaping*.
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https://www.lung.ca/sites/default/files/Vaping_FAQs_REV.pdf
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