

# Vaping vs Smoking

## Ingredients

Vaping	Smoking
<ul style="list-style-type: none"> <li>➤ <b>Propylene glycol</b> is an organic non-toxic product used as a base for eliquid. It's used in food, toiletries, hospital air sanitizers, air fresheners and fog machines.</li> <li>➤ <b>Vegetable glycerin</b> is another non-toxic organic product used as a base for eliquid. It is the base used in the non-nicotine ecigs we see in the pharmacies.</li> <li>➤ Controlled dose of pharmaceutical grade <b>nicotine</b> expressed in mg/ml.</li> <li>➤ Natural and artificial <b>flavour</b>.</li> <li>➤ Occasionally <b>distilled water</b> or alcohol is used as a thinner.</li> </ul>	<ul style="list-style-type: none"> <li>➤ There are over 600 ingredients that can be added to cigarette tobacco such as <b>smoke flavour, eucalyptus oil, furfuryl mercaptan, snakeroot oil</b> and <b>6-Acetoxydihydrotheaspirane</b>.</li> <li>➤ <b>Ammonium salts</b> increase the amount of nicotine absorbed into the bloodstream.</li> <li>➤ <b>Menthol</b> numbs the lungs as well as <b>eucalyptol</b> and <b>theobromine</b> chemically stretch the passageway to the lungs to get more smoke into the lungs.</li> <li>➤ <b>Lactones</b> reduce the body's ability to get rid of nicotine.</li> <li>➤ <b>Acetaldehyde</b> acts as an antidepressant in the brain.</li> </ul>

## What's inhaled

Vaping	Smoking
<ul style="list-style-type: none"> <li>➤ 70-90% pure <b>water</b>. We always breathe in water, it's called humidity.</li> <li>➤ <b>Propylene glycol</b> is extensively tested and safe for inhalation.</li> <li>➤ No significant hazard has been identified from inhaling <b>vegetable glycerin</b>.</li> <li>➤ Traces of <b>nicotine</b>.</li> <li>➤ Traces of <b>flavour</b>.</li> <li>➤ All heavy metals, cancer causing chemicals and toxins found in vapor are at trace levels. Levels in far too low amounts to cause harm or disease.</li> <li>➤ Over 9000 observations on the constituents of vapor were compared to <b>workplace exposure standards</b> and all were less than 1% of safety levels (except 2 were less than &lt;5%).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Over <b>6000 chemicals</b> are produced when tobacco is burned: 1500 cause disease and 69 definitely cause cancer.</li> <li>➤ <b>Tar</b>: A sticky, dark brown mixture of a whole bunch of chemicals that clog your lungs.</li> <li>➤ <b>Carbon monoxide</b> takes the place of oxygen in your blood, making it harder to get oxygen to your cells.</li> <li>➤ <b>Hydrogen cyanide</b> stops the lungs from cleaning themselves by preventing the tiny hairs (cilia) from moving bad stuff out.</li> <li>➤ <b>Hydrocarbons, organic acids, phenols, nitrous oxide</b> and <b>oxidizing agents</b> harm your lungs.</li> <li>➤ <b>Free radicals</b> make cholesterol stick to your blood vessels. This makes it hard for the blood to go where it needs to go which can cause heart attacks and strokes.</li> <li>➤ <b>Arsenic, cadmium, lead</b> cause all sorts of diseases including cancer.</li> <li>➤ <b>Radioactive compounds</b> cause cancer.</li> </ul>

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## Bystanders

### Vaping

- Vapor has **light** fragrance.
- Vapor **does not** make you or anything else **stink** like smoke.
- Vapor has **no risk** to bystanders.
- It's highly unlikely that vapor would irritate respiratory conditions considering that smokers with lung diseases that switched to vaping reported decreases in symptoms. Please note, those highly sensitive to otherwise non-irritating substances may find vapour to be the same. In the case that vaping bothers others, vapers should act considerately.

### Smoking

- About **600,000 people die** every year from second hand smoke.
- Second hand smoke **offends others** from the distinctive stench.
- Second hand smoke **causes irritation** to other people's eyes, nose, sinuses and taste.
- Second hand smoke can **trigger asthma** and sudden **infant death syndrome**.
- Second hand smoke makes vehicles, homes and the smoker **smell bad**.

## Addiction

### Vaping

- **Millions smokers** all over the world have **quit smoking** by switching to vaping because vaporizers effectively **deliver nicotine**; uniquely satisfy the ritualistic physical habit of smoking; and mimic the sensations of smoking *within* the smoker.
- In controlled clinical trials with smokers **not** intending to quit smoking: after six months **21% had quit smoking** using a vaporizer. These clinical trial groups had a total **reduction of 60-80%**; from **25 cigarettes** a day to just **5!** Compare this to trials with nicotine patches where only **6% quit smoking**.
- Over 25,000 vapers have been surveyed: typically they are **long term smokers**, 35-45 in age; they had **tried to quit an average of nine times** and 2 out of 3 had tried nicotine patches and/or gum to quit.
- Over ¾ of these vapers had **not had a smoke** in the last month. **93%** felt vaping was **less addictive** than smoking. 19% were dual users (smoke and vape) and had **reduced** the number of smokes a day by **40%**.
- Pharmaceutical grade nicotine found in gum (and vaporizers) is shown to be **3X easier** to quit than smoking.

### Smoking

- **52%** of smokers **try to quit** every year.
- **70%** of smokers **want to quit** but believe they can't.
- They have a **4%** success rate **cold turkey**; **8%** success with nicotine **patches/gum**; if intense counselling is added, success can reach 16%.
- Smoking cessation methods currently approved by Health Canada have an **84% failure rate at best!**
- Of those successful 'quitters', **80% relapse in the first month** and only **5%** achieve **long term** cessation.
- **Chemicals** are **added** to tobacco cigarettes to make them **more addictive** than just nicotine on its own.
- The **physical ritual** of smoking is a big part of the addiction: bringing a **smoke to the mouth**; **tasting** the smoke with a drag; feeling **sensations** in the throat and lungs on a **big inhale**; and seeing the **visible exhale** are repeated 240 times a day for a pack-a-day smoker; **87,600 times a year!** This physical habit is coupled with a hard hit of nicotine to the brain, making smoking one of the **hardest things to quit**.

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## Health effects

Vaping	Smoking
<ul style="list-style-type: none"> <li>➤ Smokers with <b>chronic diseases</b> that switched to vaping showed <b>improvements</b>: 40% with diabetes; 50% with high blood pressure; 42% with high cholesterol; 65% with asthma; 54% with heart disease; and 76% with COPD.</li> <li>➤ 18% of those with lung disease <b>lowered their medication</b> and 18% <b>stopped taking medication</b> after switching to vaping.</li> <li>➤ Asthmatic smokers showed an actual <b>reversal of lung damage</b> when they stopped or reduced smoking by vaping.</li> <li>➤ <b>90%</b> of vapers surveyed stated that their <b>health improved</b> with vaping and 65% said they continue to have a <b>smoking experience</b> but with <b>reduced health risks</b>.</li> <li>➤ <b>No serious adverse effects</b> have been caused by vaping.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Tobacco cigarettes have been <b>approved by Health Canada</b>. When used correctly, this product <b>kills 2 out of 3 users</b>.</li> <li>➤ Tobacco smoking is the <b>biggest avoidable cause</b> of disease and premature death in Canada and the world.</li> <li>➤ Every year <b>37,000 Canadians die</b> from smoking; one death <b>every 11 minutes!</b></li> <li>➤ About <b>1.1 million Canadians suffer</b> from smoking related illnesses.</li> <li>➤ Smoking is responsible for 36% of <b>respiratory</b> diseases, 29% of <b>cancers</b>, 14% of <b>cardiovascular</b> diseases, <b>85% of lung cancer</b> and <b>87% of COPD</b>.</li> </ul>

## The Costs

Vaping	Smoking
<p><b>Financial</b> Vaping can be much cheaper (50%+) than smoking when using a pen style vape. Sub-ohm vaping, which produces thick clouds of vapor, uses a lot more eliquid and the hardware can be pricy.</p> <p><b>Social</b> Vaping is not hazardous to the user or bystander; there is no need to be cast outside. Vapor does not stink like cigarettes and does not irritate others. Smokers can be free of the embarrassment and self-consciousness of smelling like smoke.</p> <p><b>Business</b> Without risk to others, vaping can be done within the workplace. Eliminating the need for smoke breaks increases productivity. Eliminating the toxins and the illnesses resulting from smoking; vapers would take less likely to use as much sick time.</p> <p><b>Environment</b> Vaping produces no polluting butts and most parts of vaporizers are recyclable.</p>	<p><b>Financial</b> Smoking a pack a day costs about \$4500 per year. Smokers have more sick time and loss of earnings. Smokers are at higher risk for chronic disease which costs money for daily medications and treatments.</p> <p><b>Social</b> Smokers are forced to leave social situations to smoke outside. They carry the embarrassing odour of smoke. Society has developed a judgmental attitude towards smokers. Loved ones worry about smokers' health and can cause conflict because of costs and other concerns.</p> <p><b>Business</b> Smokers cost their employers US\$5,700 a year in lost productivity, sick time and benefits. Groups of people smoking outside a business make the establishments less inviting.</p> <p><b>Environment</b> Most cigarette butts aren't biodegradable and pollute the environment. Ashes are messy and cigarettes are a significant cause of fires.</p>