



# VAPING FACT SHEET

Vaping devices (also known as “e-cigarettes”) are electronic devices that turn liquids into an aerosol (sometimes referred to as vapour) which is inhaled.

## WHAT IS IN VAPING LIQUIDS?

Vaping liquids are made up of propylene glycol (PG) and / or vegetable glycerine (VG). These ingredients are similar to those used in smoke machines found in nightclubs, music concerts and theatre performances.

### Flavoured liquids (non-nicotine)

PG / VG based liquid with the addition of flavouring agents.

### Cannabis e-liquids

These PG / VG based liquids contain extracts of cannabis. These are uncommon in Australia.

### Nicotine containing liquids

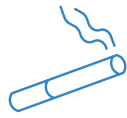
These liquids are also made with either or both PG / VG, and include nicotine, commonly mixed with flavouring agents.

### Other

There are other liquids that are likely PG / VG based, but contain new psychoactive substances including synthetic cannabinoids, or novel benzodiazepines. These remain uncommon in Australia.

## POTENTIAL HEALTH RISKS OR BENEFITS OF VAPING

| Potential Risks  | Potential Benefits   |
|--|--|
| In young people who are non-smokers, vaping may worsen asthma, bronchitis and cough. <sup>1</sup>  | In people who are smokers with asthma or chronic obstructive lung disease, switching to vaping can lead to a reduction in respiratory symptoms. <sup>1</sup>     |
| Because vaping is a relatively recent phenomena, there could be long-term harms that have not yet been identified. <sup>1</sup>  |  |
| Vaping devices have been known to explode, due to faulty batteries. <sup>2</sup>   | Vaping liquid nicotine is likely to be safer than smoking tobacco due to less carcinogens and other toxic chemicals found in tobacco smoke. <sup>1</sup>         |
| As most vaping liquids are currently unregulated in Australia, they may contain unknown ingredients or be mislabelled as nicotine free when they do in fact contain nicotine. <sup>4</sup> |  |
| Young people can become dependent on nicotine from vaping. <sup>1</sup>  |  |
| Young people are being suspended or expelled from school due to vaping. Disengagement from education is a risk factor for a range of health and social harms. <sup>5</sup>                 | There is evidence that nicotine vaping is more effective for people looking to quit smoking than other forms of nicotine replacement therapy (NRT). <sup>3</sup> |
| Liquid nicotine is toxic when consumed orally, and it can absorb through the skin leading to nicotine overdose. <sup>6</sup>   |  |



## IS VAPING AN “ON-RAMP” TO TAKING UP CIGARETTE SMOKING?

Research in countries where nicotine liquids are widely available (for example the United Kingdom and the United States) shows that while there has been an increase in the uptake of vaping, rates of cigarette smoking continue to decline in young people. This suggests that increasing use of vaping devices is not linked to increasing rates of tobacco smoking in young people.<sup>178</sup>



## HAVE THERE BEEN DEATHS CAUSED BY VAPING-INDUCED LUNG INJURY?

There have been deaths associated with the use of black-market cannabis e-liquids contaminated with vitamin E acetate, which caused a syndrome referred to as EVALI (E-cigarette / Vaping associated lung injury). This issue was limited to North America, and most likely linked to black-market cannabis liquids produced outside of the legalised cannabis market.<sup>1</sup>



## I HEARD THAT NICOTINE DAMAGES THE DEVELOPING BRAIN.

Animal studies have found nicotine can affect parts of the developing brain associated with executive function and decision-making. Also, there is evidence of neurologic changes in the brains of adolescent tobacco smokers. However, the animal studies may not translate to humans and there are questions about some of these studies’ design. The research into adolescent smokers is complicated by potential confounding factors like genetics, socio-economic factors, and the use of other substances like alcohol. More research is required to better understand the possible impacts of nicotine on the developing brain.<sup>1</sup>



## IS “POPCORN LUNG” A RISK FROM VAPING FLAVOURS?

Over two decades ago, workers employed in popcorn factories developed serious lung disease. It was found that this was caused by diacetyl - a butter flavoured chemical commonly used in microwave popcorn. Diacetyl was found in some vaping liquids, leading to concerns that vaping could lead to the development of “popcorn lung.” However, diacetyl is found in regular cigarettes at much higher levels than that found in vaping liquids. Also, diacetyl has been removed from most flavoured vaping liquids, and we have not seen evidence of widespread “popcorn lung” in people who regularly vape<sup>9</sup>.

## FEDERAL AND QUEENSLAND LAWS

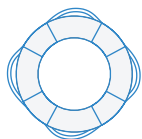
E-cigs / vapes are considered smoking products under Queensland law. This means that it is illegal to:

- Vape in a no-smoking outdoor or indoor place (including in a car with a person aged under 16)
- Sell a vape or related product to someone aged under 18, this includes products that do not contain nicotine
- Advertise, promote, or display vaping products in retail outlets

From the 1st of October 2021, liquid nicotine can only be accessed with a doctor’s prescription. If you know of retailers that are supplying nicotine containing vape products you can report them to Queensland Health by contacting 13 QGOV (13 74 68).

## HOW SHOULD WE RESPOND TO YOUNG PEOPLE WHO ARE VAPING?

Any response to vaping needs to consider the function of the behaviour in order to most effectively address it. Below are some suggestions to consider when developing a response to young people who are vaping.



Is the young person dependent on nicotine from cigarette smoking? If they are dependent on nicotine from cigarette smoking, then vaping nicotine might be less harmful. Consider providing support to the young person to speak with a doctor to find out their options.



Educate young people on the risks of nicotine dependence – even in liquids which are marketed as nicotine free.



The response to vaping should align with similar responses to tobacco smoking.



We should be careful to ensure the response to vaping is not more harmful to the young person than the act of vaping itself. This includes considering the risks associated with disengagement from education because of suspension or expulsion.



Health messages should be delivered in a balanced, factual way, and should avoid exaggeration, cherry-picking health risks or over-stating risks.



Consider including the topic of vaping into any existing health education already being provided on cigarette smoking.

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