

Vaping and young people.

The increasing popularity of inhaling e-cigarettes, known as vaping, has led to questions and concerns around the health impacts – especially for young people.

Both nicotine-based products and nicotine-free products can be vaped, and while the extent of the harm is not yet clear, evidence suggests that vaping is not risk-free.

This mini-bulletin has been developed to help parents, and those working with young people, understand the issues and potential risks of e-cigarette use – so they can have a constructive conversation with a young person that they may be concerned about.

It covers:

- what is vaping?
- what are the established harms?
- vaping in Australia
- vaping amongst young people
- having a conversation with young people.

What is vaping?

Vaping refers to the use of an electronic device (e-cigarette) to heat liquids and produce a vapour, which is then inhaled – mimicking the act of smoking.

The following substances can be vaped:

- nicotine (which is the main **psychoactive drug** in tobacco)
- nicotine-free ‘e-liquids’ made from a mixture of solvents, sweeteners, other chemicals and flavourings
- other drugs, e.g. THC (cannabis) e-liquids.¹

Vaping devices come in a variety of shapes, sizes and styles.

The first generation of devices released in 2003 resembled cigarettes and were mostly disposable; second-generation devices looked like pens, were rechargeable, and used cartridges or tanks for the liquid; the third generation (‘mods’) are larger devices with bigger batteries and refillable tanks; and the current generation of devices (‘pods’) are significantly smaller, often resembling USB sticks.

Research suggests that contemporary vaping devices may be more harmful to health than earlier-generation devices. They can be modified to deliver a higher, more harmful concentration of nicotine, and have larger batteries that can heat e-liquids to higher temperatures, producing more toxic chemical particles in the inhaled vape cloud.^{2, 3}

Some people use e-cigarettes to reduce or quit smoking. However, there is not enough evidence to support their use for this purpose.

In fact, the Therapeutic Goods Administration (TGA) has not approved any e-cigarettes to help people quit smoking.⁴



What are the established harms?

Is vaping nicotine safer than smoking combustible tobacco?

Combustible tobacco refers to any tobacco product that is smoked, such as ready-made cigarettes, roll-your own cigarettes, cigars or cigarillos.

It is the nicotine in these products that causes the mild stimulation feelings smokers get.

Tobacco creates the taste, and is responsible for the majority of harmful chemicals and carcinogens (can cause cancer).⁵

Some evidence points to the replacement of tobacco smoking with nicotine-containing e-cigarettes as less harmful due to reduced exposure to the chemicals and carcinogens in tobacco⁶⁻⁸, however they are not completely harmless.

Nicotine on its own is still a toxic substance and regular vaping of it can lead to dependence.

Nicotine can damage DNA, promote tumours, and is linked to a number of different cancers.⁹

It is also important to understand that nicotine e-liquids also contain a wide range of other chemicals, additives and

flavourings which can be potentially hazardous. The long-term health consequences of these substances are not yet fully understood.¹⁰

What about nicotine-free e-liquids?

Although labelled as ‘nicotine-free’, some e-liquids can still contain traces of nicotine.¹¹ Some users may also add their own nicotine to non-nicotine flavoured e-liquids.¹²

Even without nicotine, these e-liquids contain a mix of unregulated chemicals and additives that are potentially harmful. Some chemicals that have been found include: volatile organic compounds (common in paint and cleaning products), ultrafine particles (which are damaging to lungs), metals such as nickel, tin and lead, 2-chlorophenol (used in disinfectants) and certain carcinogens.^{11, 13}

Two ingredients commonly found in THC (cannabis) e-liquids are vitamin E acetate and diacetyl. Both have been linked to a number of lung injuries in the United States known as ‘popcorn lung’ or EVALI.¹

There have been no reports of similar lung injuries in Australia to date, however as of February 2020, the US had recorded 2807 hospitalisations and 68 deaths.¹⁴

Vaping in Australia

Key Statistics



All age groups

- Those using e-cigarettes are three times more likely to smoke combustible tobacco than those who have not used e-cigarettes.¹⁵
- Former smokers who use e-cigarettes are more likely to relapse to current smokers.¹⁵
- Between 2016 and 2019, the proportion of people who had ever used e-cigarettes rose from 9% to 11%.¹⁶
- Of those who had tried e-cigarettes, 18% used them at least monthly compared to 10% in 2016, and 9% used them daily compared to 6% in 2016.¹⁶
- In 2019, 3% of current cigarette smokers also used e-cigarettes daily and 8% of current smokers used e-cigarettes at least monthly.¹⁶



Young people (18-24 years of age)

- Of those aged 18–24, nearly 2 in 3 (64%) current smokers and 1 in 5 (20%) non-smokers reported having tried e-cigarettes, compared to 49% and 13.6% in 2016.¹⁶
- Of young adults aged 18–24 who tried e-cigarettes, the majority (74%) said they did so out of curiosity.¹⁶



Adolescents (12-17 years of age)

- In Australia, around 14% of 12 to 17-year-olds have ever tried an e-cigarette, with around 32% of these students having used one in the past month.¹⁷
- Students who had vaped most commonly reported getting the last e-cigarette they had used from friends (63%), siblings (8%) or parents (7%). Around 12% of students reported buying an e-cigarette themselves.¹⁷

What are Australian health organisations saying?

Several key Australian health organisations, such as the Australian Medical Association (AMA), Cancer Council Australia and the Australian Council on Smoking and Health (ACOSH) have published positions on e-cigarettes, sharing the following messages:

- There is insufficient evidence to promote the use of e-cigarettes for smoking cessation.
- There is increasing evidence of health harms.
- E-cigarettes may normalise the act of smoking and attract young people.
- E-cigarettes should be more properly regulated.¹⁸

To view these organisational positions, see [here](#).

The legal status of vaping in Australia

It is illegal for individuals to sell or purchase e-liquids that contain nicotine in any form in Australia.

A person may still access an e-liquid that contains nicotine via a special import arrangement, however only if it has been prescribed by a doctor.¹⁹ For further information, see [here](#).

Nicotine-free vaping devices and e-liquids can be legally sold and purchased in most states and territories through online retail stores and tobacco retail outlets.

As of September 2020, the laws in each state and territory are as follows:

| | Sale | Advertising and promotion |
|------------|---|--|
| VIC | Devices may be sold without nicotine | No promotion allowed for e-cigarettes. Internal display of vaping items also not allowed, with the exception of certain specialist retailers |
| NSW | Devices may be sold without nicotine | No promotion allowed for e-cigarettes. No advertising inside store or in public |
| QLD | Devices may be sold without nicotine | No promotion allowed for e-cigarettes. No advertising inside store or in public |
| WA | Devices cannot be sold, nicotine-free e-liquids can | No restrictions on promotional material |
| SA | Devices may be sold without nicotine | No promotion allowed for e-cigarettes. No advertising inside store or in public |
| NT | Devices may be sold without nicotine | No restrictions on promotional material |
| ACT | Devices may be sold without nicotine | No promotion allowed for e-cigarettes. No advertising inside store or in public |
| TAS | Devices may be sold without nicotine | No promotion allowed for e-cigarettes. No advertising inside store or in public |

Vaping amongst young people

Australian surveys show vaping by young people has increased.^{16, 17}

Young people who vape nicotine are exposed to a toxic chemical that can harm adolescent brain development (the brain continues to develop until the age of 25) and lead to dependence.²

There is also some evidence that vaping nicotine is associated with later tobacco use among teenagers.²⁰⁻²⁴

Why are young people attracted to vaping?

The advertising and promotion of vaping products is illegal in Australia.

However, companies can use other strategies to target youth.

Social media has been found to play a role as both an information source and

as a means of exposure to e-cigarette advertising in Australia.²⁵

Companies are also glamourising their products to seem cool or fun and creating flavours that appeal to young people.²⁶

There have been a number of studies which have found that e-cigarette flavours which give off the perception of sweetness (such as candy or fruit flavoured) may make buying and trying e-cigarettes more appealing among young people.²⁷⁻²⁹

“In recent years we have also seen the proliferation of shops selling enticing non-nicotine e-cigarettes and liquids with thousands of attractive flavours like green apple ice, cinnamon roll and alpha mint. These are purely recreational products that have no place in our market for either kids or adults.”³⁰
- Cancer Council Australia



Having a conversation with young people

If you are a parent, guardian, teacher or other mentor, you may be concerned about e-cigarette use by a young person in your life.

It is always a good idea to talk about it together and there are a few helpful strategies that can be used¹:



Arm yourself with information

Start with the key facts and a clear idea of what you want to say. Consider questions you might be asked, and how you can respond. This mini-bulletin will help.



Approach the conversation calmly

You might want to start the conversation when you are doing an activity together, such as watching TV or driving. Keep it casual and relaxed.



Do not make assumptions

If you suspect they may have tried vaping, avoid making accusations. Going through their personal space to look for evidence can undermine trust and is not recommended.



Avoid judging or lecturing

Talk to them with respect. Be conscious of your body language and tone and make sure you listen to their point of view. If they have tried vaping, ask them questions like: 'what made you want to try?' and 'how did it make you feel?'



Do not exaggerate the facts

Make sure you are completely honest with them about potential harms. Avoid saying exaggerated things like 'vaping is worse than smoking cigarettes' or 'vaping will kill you'.



Talk about how you care about them

For example, if they are vaping nicotine you can say that you are concerned about the evidence that this can affect adolescent brain development.

¹ This section is based off expert-reviewed advice from the [positive choices](#) website.

The resource 'Talking to a young person about alcohol and other drugs' can be viewed [here](#).

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