



Vaping and e-cigarettes

A HSE information booklet for parents, guardians and young people



About this booklet

This booklet is about e-cigarettes and vaping. We wrote it to help you understand the risks associated with vaping. It is for young people as well as parents and guardians. There is information in this booklet on the following:

1. What are e-cigarettes?
2. What is in an e-cigarette aerosol?
3. Different types of vapes
4. Who is using e-cigarettes?
5. What are the health risks of vaping?
6. How would you know if you are addicted to vaping?
7. Is vaping less harmful than smoking tobacco cigarettes?
8. The environmental impact of vaping
9. Does the HSE recommend e-cigarettes to help people to quit smoking tobacco cigarettes?
10. Does the HSE provide stop vaping services?
11. How to talk to a young person about vaping.

1. What are e-cigarettes?

E-cigarettes are electronic devices that produce an aerosol by heating a liquid (often called 'e-liquid'). This e-liquid usually contains nicotine, which is an addictive drug found in regular cigarettes and other tobacco products. The e-liquid used in e-cigarettes also contains flavourings and other chemicals. Users breathe this aerosol into their lungs. This is commonly referred to as 'vaping'. Anyone who is near a person who is vaping also breathes in this aerosol.

E-cigarettes can also be used to vape cannabis and marijuana.

E-cigarettes are known by many different names. They are sometimes called 'e-cigs', 'vapes', 'vape pens', 'tanks' and 'electronic nicotine delivery systems'.

There are many different types of e-cigarette, and we tell you more about these on page 4.

* We use the words e-cigarettes and vapes or vaping throughout this booklet as they mean the same thing.

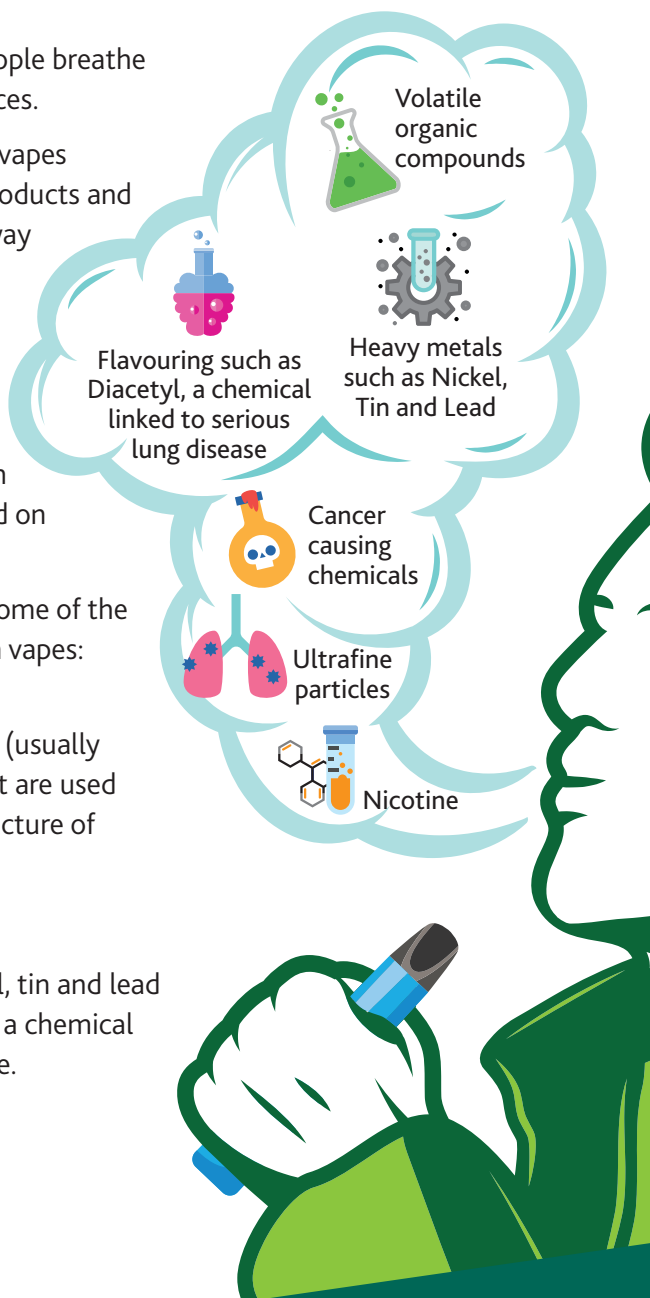
2. What is in an e-cigarette aerosol?

The e-cigarette aerosol that people breathe in can contain harmful substances.

It is hard to know exactly what vapes contain. Vapes are consumer products and are not regulated in the same way as a drug or medical device. Some vapes that claim they have no nicotine have been found to contain nicotine. Some vapes for sale in Ireland have also been found to contain more nicotine than is advertised on the packaging.

The image on the right shows some of the substances that can be found in vapes:

- Nicotine
- Volatile organic compounds (usually human-made chemicals that are used and produced in the manufacture of pharmaceuticals)
- Ultrafine particles
- Cancer-causing chemicals
- Heavy metals, such as nickel, tin and lead
- Flavouring, such as diacetyl, a chemical linked to serious lung disease.



3. Different types of vapes

Some vapes are made to look like regular cigarettes, cigars or pipes. Some look like pens, USB sticks and other everyday items, while others have a tank-style shape with a mouthpiece.

There are many kinds of vapes available to buy in Ireland today. The most common types are:

Disposable vapes

Disposable vapes are bought fully charged and are already filled with e-liquid. They cannot be recharged or refilled and cannot be used once the battery and e-liquid are used up. In recent years, disposable vapes have become popular in Ireland, particularly among young people. Some of the most common brands include Lost Mary, Elfbar and Vuse.



Vape pens

These vapes can be recharged and can be used multiple times. The e-liquid is held in a refillable cartridge. The cartridge is attached to a battery pen, which contains the battery.



Modifiable tanks

These vapes can be recharged and used multiple times. The battery power can be increased or decreased through controls on the battery. These controls tell the vape to make more or less aerosol.



Cost of vapes

In 2023, disposable vapes cost about €8 each to buy. Refillable vape pens and tank starter kits start at around €30 and can go up in price to €100, depending on the device.

4. Who is vaping?

The number of people who vape has increased significantly in Ireland in recent years. There has been an increase in vaping among children and young people. This is something, which has been seen in many other countries. It is a cause of concern for children and young people, their parents, their communities and health professionals.

Adults – 1 in 12 use e-cigarettes

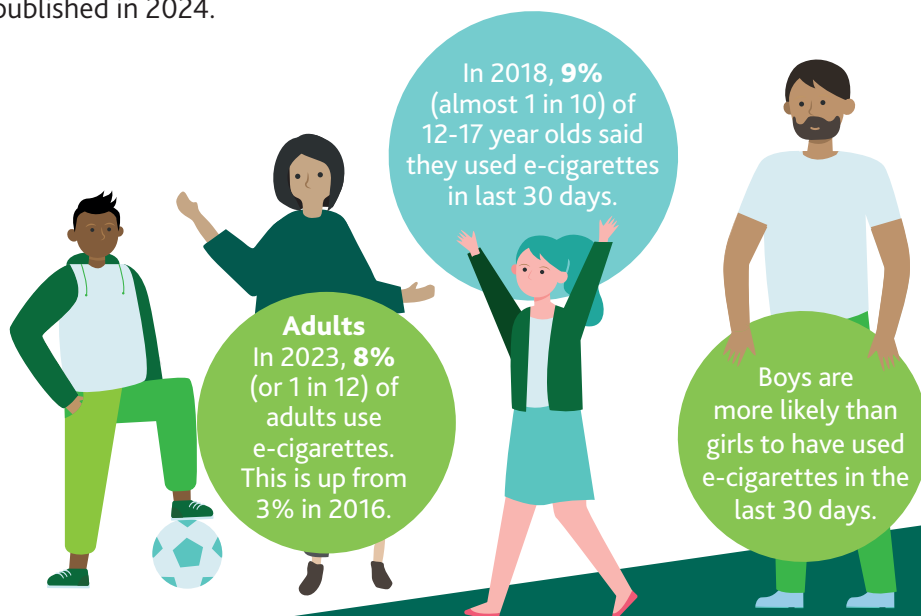
Our most recent figures on e-cigarette use for adults is from the 2023 Healthy Ireland Survey. These figures show that 8% of adults use e-cigarettes. This compares to just 3% in 2016.

Most of these adults smoke regular cigarettes now or have done in the past. The 8% figure is about 1 in 12 people.

Children and young people – at least 1 in 10 use e-cigarettes

Our most recent figures on e-cigarette use by children and young people (12-17 years) is from the 2018 Health Behaviour of School-Aged Children Study. These figures show that 9% of them used e-cigarettes in the last 30 days (about 1 in 10). Usage is more common for boys than girls, and was more common among older children and young people.

We expect that this figure has increased since 2018. A new report will be published in 2024.



5. What are the health risks of vaping?

We are still learning about the long-term health effects of vaping. Here is what we know now.

You can become addicted to nicotine

- Most e-cigarettes contain nicotine, which is highly addictive and leads to dependence.
- Nicotine can also train the brain to be more easily addicted to other drugs like cocaine.
- Children and young people are especially vulnerable to the effects of nicotine as their brains are still developing.
- Children and young people who vape are likely to become addicted to nicotine, develop mood disorders and find it hard to control their impulses.

There are physical side effects

Nicotine addiction happens very quickly and the risk of long-term addiction is very high. Nicotine also has physical effects on the body. People who vape may experience any combination of:

- Nausea
- Vomiting
- Diarrhoea
- Cold, clammy skin
- A rapid pulse
- Dizziness
- Fainting
- Headaches
- Anxiety
- Increased sweating

You can suffer from nicotine withdrawal

People may also experience nicotine withdrawal when they stop vaping or in situations or places where they cannot vape.

Common symptoms of withdrawal include:

- Anger, frustration and irritability
- Difficulty concentrating and studying
- Feeling tired or groggy
- Having trouble sleeping



It can harm your mental health

- Nicotine in vapes can have a negative impact on your mental health, for example it can cause mood swings and make it harder to control your impulses.
- Nicotine withdrawal symptoms can include irritability, restlessness, feeling anxious or depressed, trouble sleeping, problems concentrating, and craving nicotine.

It can harm your general health

- Early evidence links e-cigarettes to heart and lung tissue damage as well as an increased risk of asthma attacks.
- E-cigarettes can contain substances that harm the body. These include tiny particles that reach deep into the lungs as well as chemicals that are known to cause cancer.
- Children and young people who use e-cigarettes are more likely to start smoking compared to those who never used e-cigarettes.
- Children and adults have been poisoned by swallowing, breathing or absorbing e-liquid.

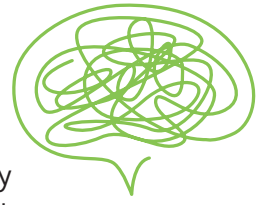
There are other risks associated with vaping

E-cigarettes can cause unintended injuries. E-cigarette batteries have caused fires and explosions, some of which have resulted in serious injuries.

What are the long term risks of vaping?

E-cigarettes are still relatively new. It will take several years, maybe even decades, before we know everything about the health effects of vaping. For example, we know that e-cigarettes have an effect on the heart and lungs while they are being used and shortly afterwards. However, it will take large studies of people who vape over many years for us to know if this leads to serious lung, heart disease or cancer.

There is evidence now however that young people who vape are more likely to begin smoking conventional, factory-made cigarettes.



6. How would you know if you are addicted to vaping?

Here are some signs to watch out for. You are probably addicted to vaping if you:

- need to vape after waking up in the morning
- feel anxious or irritable due to cravings
- are vaping without thinking about it
- are having trouble concentrating or sleeping
- are thinking about vaping throughout the day, and/or
- continue to vape even after learning about the health risks

7. Is vaping less harmful than smoking tobacco cigarettes?

We don't know for sure. Compared to regular (tobacco) cigarettes, vaping may be less harmful. This does not mean that it is harm-free. Vapes contain harmful and potentially harmful substances that we told you about on page 3 of this booklet. Also, as they are still very new, we have yet to get a full picture of the long term harm vaping can do to your health.

8. The environmental impact of vaping

E-cigarette waste is a serious environmental threat. They introduce plastic, nicotine salts, heavy metals and flammable lithium-ion batteries into waterways, soil and to wildlife.

Like cigarette butts, e-cigarette waste won't biodegrade even under severe conditions. E-cigarettes left on the street eventually break down into microplastics and chemicals that are a threat to the environment and human health. Disposable vapes in particular, are increasingly ending up as litter in Ireland and are harmful to the environment.



9. Does the HSE recommend e-cigarettes to help people to quit smoking tobacco cigarettes?

The HSE does not recommend using e-cigarettes as a stop smoking aid. We advise anyone who wants to stop smoking to use evidence-based medications (medications that are safe and that we know can work well). An example of this is nicotine replacement therapy.

Despite this, some people may choose to vape to support them in quitting smoking tobacco cigarettes, or they may consider switching from smoking to vaping. Although we can provide support to anyone who wants to use e-cigarettes to try to quit smoking cigarettes, you should read the following before making this decision:

No regulation of e-cigarettes

E-cigarettes are consumer products. There is some regulation in place to protect consumers of e-cigarettes, but it is not the same as what is in place for a licensed drug or medical device. In Ireland, the Health Products Regulation Authority (HPRA) is the authority responsible for regulation of medical devices. E-cigarettes are not currently classified as a medical device and are not regulated by the HPRA.

Help available to quit

For people who smoke and want to quit, the HSE provides free behavioural support and medications such as nicotine replacement therapy. These are effective and safe.

Risks unknown

Smoking tobacco is extremely dangerous and, compared to this, e-cigarettes are likely to be less harmful. However, they are not harm-free and we won't know how much they can harm your health for some time.

There are a lot of things we don't know about the safety of e-cigarettes and whether or not they actually work as a stop smoking aid.

If you don't smoke or use e-cigarettes, you are doing well. Don't start!

10. Does the HSE provide stop vaping services?

The HSE provides safe, effective and clinically sound stop smoking services, which are free and easy to access across the country. These services have been designed for people who smoke cigarettes. We think that these supports may also help those people who wish to stop vaping. If required we will provide support and advice to those who wish to stop vaping.

Research is ongoing to establish safe and effective services to help people stop vaping. There is good evidence to show that advice and support can help people address things like smoking, vaping, drinking and drug use.

Worried about your child vaping?

If you or your child are worried about vaping you can contact the HSE stop smoking services at:

www.quit.ie and search for stop smoking clinics or

Freephone 1800 201 203

The HSE recommends that young people do not vape. The long-term impact of these products is unknown. There is emerging, but limited evidence that e-cigarettes may act as a 'gateway' to tobacco use, especially among those in their late teens who did not intend to smoke tobacco. In fact, evidence suggests that young people who vape are three to five times more likely to begin smoking regular, factory-made cigarettes.

11. How to talk to a young person about vaping

Here are some suggestions for talking to young people about your concerns:

- Find the right moment, such as when you see someone vaping, you're walking past a vape shop or you see advertisements.
- Ask questions like: what do they think about vaping? Do they know people who vape? Are they vaping themselves? Why do they think people vape?
- Listen to them, learn from them, but also use what you know to help them understand the facts about vaping.
- Talk about the different reasons why young people may vape and give examples such as wanting to fit in, curiosity, stress. Talk to them about how to respond if they ever feel pressured to try vaping and practise this together.
- Talk about your concerns and tell them why you don't want them to vape or smoke.

We hope you found this booklet useful.





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