

Fact sheets 2025

What are e-cigarettes?

Electronic cigarettes (e-cigarettes) are hand-held battery powered devices that deliver a liquid which is heated and inhaled as an aerosol. The aerosol is commonly referred to as 'vapour', and the use of an e-cigarette is commonly referred to as 'vaping'.

The liquid solution usually comprises propylene glycol and glycerol, with or without nicotine and flavours, which is stored in disposable or refillable cartridges, or a reservoir. The composition of the liquid solutions have been reported to contain flavourings and harmful substances such as heavy metals, volatile organic compounds and cancer-causing chemicals. E-cigarettes can contain nicotine, even if labelled "nicotine free". They may also look like cigarettes, cigars, pipes, pens or memory sticks. Newer versions, called box or 'squonk' mods, are bulkier and box-like in shape.

In Australia, adults can purchase therapeutic e-cigarettes containing 20mg/mL of nicotine or less from participating pharmacies without a prescription where clinically appropriate. For those aged under 18 years or who require a higher nicotine concentration, a doctor's prescription is required.

What are the effects?

E-cigarettes provide taste and throat sensations ('throat hit'), similar to smoking. Depending on the content of the e-liquid, they can produce a large vapour which may be satisfying for some users. Producing large vape clouds or 'cloud chasing' is an emerging hobby.

If e-cigarettes contain nicotine, the effects may be the same as smoking tobacco cigarettes.

E-cigarettes and smoking cessation

Smoking cessation therapies such as nicotine patches and lozenges are available in Australia. These have been evaluated and approved by the Therapeutic Goods Administration (TGA). Such products do not have the same health risks as e-cigarettes.

To date, there are currently no therapeutic e-cigarettes that have been evaluated by the TGA for smoking cessation. However, unapproved products may assist some people with quitting under medical supervision and if their health practitioner sees it as clinically appropriate. It is important to always speak to a doctor about smoking cessation options.

E-cigarettes

electronic nicotine delivery systems,
alternative nicotine delivery systems,
vaporisers, e-hookahs, vape pens,
vape mods and vapes



What are the risks?

The wide variation in products and the ability of users to customise their experience makes it difficult to assess the safety and efficacy of e-cigarettes as a group, because the results from research involving one product may not be applicable to all e-cigarettes or all users.

E-cigarettes may expose users to chemicals and toxins at levels that have the potential to cause health effects. These include solvents such as propylene glycol, glycerol or ethylene glycol, which may form toxic or cancer-causing compounds when vaporised. Although these chemicals are typically found in lower concentrations than in tobacco cigarettes, in some studies e-cigarettes and tobacco cigarettes were found to produce similar levels of formaldehyde, which is classified as a cancer-causing agent. E-cigarette liquids or vapour may also contain potentially harmful chemicals that are not present in smoke from tobacco cigarettes.

Regulators and health authorities in Australia, Europe, and the US have documented cases of e-cigarettes overheating, catching fire or exploding, causing serious burns and injuries. Such cases occurred when the device batteries were of poor quality, stored improperly or modified by users.

Dependence and withdrawal

If e-cigarettes contain nicotine, there may be a high risk of dependence and tolerance as with tobacco cigarettes.

Treatment

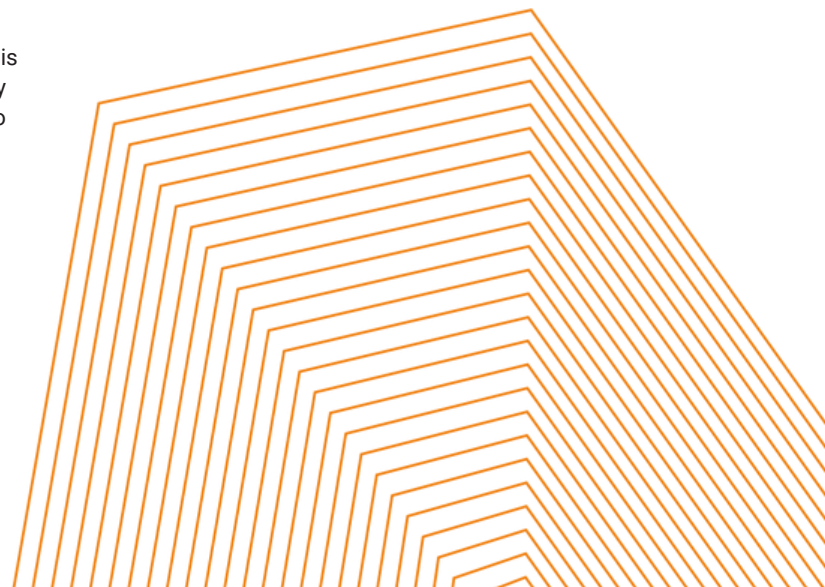
The Australian Government Department of Health and Aged Care provides information about how to quit smoking and services that may assist. You can call Quitline on 137 848, between 8am and 8pm Monday to Friday, to talk to a counsellor.

If e-cigarettes contain nicotine, treatments may be the same as those for smoking tobacco cigarettes.

E-cigarette trends in Australia

According to the Australian Institute of Health and Welfare, more people are currently using e-cigarettes in Australia than ever before, with 7% reporting current use in 2022-23, an increase from 2.5% in 2019.

Young people aged 18 to 24 are most likely to use e-cigarettes. In 2019, 5.3% of young people surveyed reported using e-cigarettes. This figure rapidly increased to 21% in the 2022-23 National Drug Strategy Household Survey. On the other hand, only 1.6% of people aged 60 to 69 currently used e-cigarettes in 2022-23.





Emergency info

If you, or someone around you, is experiencing undesired or distressing psychological or physical symptoms from the intake of alcohol or other drugs please seek immediate medical attention.

If you need urgent help from ambulance services call Triple Zero (000). If a person has been mixing drugs with alcohol or other drugs, tell the paramedic exactly what has been taken.

Services

For free and confidential advice about alcohol and other drugs, call the National Alcohol and Other Drug hotline on 1800 250 015.

The hotline will automatically direct you to the Alcohol and Drug Information Service in your state or territory.

More resources

The Illicit Drug Reporting System (IDRS) is an Australian monitoring system run by the National Drug and Alcohol Research Centre (NDARC) at UNSW Sydney that identifies emerging trends of local and national concern in illicit drug markets. Visit unsw.to/IDRS

The Ecstasy and Related Drugs Reporting System (EDRS) is an Australian monitoring system run by NDARC that identifies emerging trends of local and national interest in ecstasy and related drug use, markets and harms. Visit unsw.to/EDRS

The Pocket Guide to Drugs and Health is a publication authored by experts from NDARC that provides information for health professionals on the impact of drug use. Visit silverbackpublishing.org/products/the-pocket-guide-to-drugs-and-health

The Australian Institute of Health and Welfare collects information on alcohol and tobacco consumption, and illicit drug use among the general population in Australia. Visit aihw.gov.au

The Australian Bureau of Statistics is Australia's national statistical agency, providing official statistics on a range of economic, social, population and environmental matters of importance to Australia. Visit abs.gov.au

Sources

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