

# What Parents & Carers Need to Know about THE DANGERS OF VAPING

Data collected for ASH (Action on Smoking and Health) shows an increase in 11 to 17-year-olds experimenting with vaping: from 7.7% in 2022 to 11.6% in 2023. It's concerning that these age-restricted products are getting into the hands of under 18s as most contain nicotine, which can be detrimental to brain development and cause long-term addiction. Some schools have reported students having their focus in lessons affected by nicotine cravings; vaping in school toilets; and even trying vapes found in their local park. Raising awareness of the risks among young people could help to prevent these problems from escalating and reduce the number of young vapers.

## WHAT ARE THE RISKS?

### NICOTINE ADDICTION

Since they were initially developed to help people stop smoking, the vast majority of vape liquids contain nicotine. Not only is this a highly addictive stimulant, but it can also have detrimental effects on brain development in the under-25s. Nicotine can decrease the ability to pay attention, weaken impulse control, affect mood and increase the likelihood of substance addiction as an adult.

### WHAT IS VAPING?

Vapes contain a liquid (vape juice/e-liquid) that is heated by a battery and evaporates, creating a chemical vapour which the user inhales. They can be **disposable** (once the liquid or battery runs out, the vape is thrown away) or **rechargeable** (the user replaces the liquid and recharges the battery on demand). Most vape liquids contain nicotine and other chemicals.

### LACK OF AWARENESS

A proportion of young people tend to view vapes as harmless, mainly because of the products' appearance and the perception (often strengthened on social media) that "vaping is cool" and on trend. In many instances, young people don't fully appreciate the concept of addiction: that is, they aren't adequately aware of the risk of becoming hooked on nicotine before trying a vape.

### POTENTIAL TOXICITY

Many vape liquids have been found to contain 'heavy' metals such as lead, tin, nickel and (in some cases) mercury – all of which are toxic. These metals often take the form of tiny shards inside a device's liquid tank, which are then inhaled into the body. Some media reports have suggested these metals are particularly prevalent in illegally imported vapes which don't comply with UK regulations.

### UNCLEAR LONG-TERM CONSEQUENCES

The liquids in vapes also contain solvents, which can create carcinogens at the point of evaporation. Vapes were only introduced into the UK in 2005 – and, because of the relatively short timeframe involved, there is insufficient medical evidence to assess the long-term harms that regular inhalation of these chemical fluids might have on the human body.

### ATTRACTIVE PACKAGING

The packaging of many disposable vapes is very appealing to young people, frequently echoing the colours and flavours of the sweets or fizzy drinks they're used to buying. There's a relative lack of regulation around vape marketing, and vaping is often depicted positively on social media – which can lead young people to develop favourable views of vaping and overlook the possible harms.

### ENVIRONMENTAL EFFECTS

In the UK alone, around 1.3 million disposable vapes go to landfill every week. Due to such significant numbers of these products not being recycled, their components – a lithium battery and a chemical liquid – pose a toxic risk to the environment, the ecosystem and wildlife. Vapes are also predominantly made of plastic and metal; materials that, of course, do not naturally decompose.

### WIDER HEALTH CONCERNS

Studies are already showing a link between vaping and oral health problems such as tooth decay and gum disease. This is because vaping reduces the amount of saliva in the mouth, while increasing bacteria – resulting in bad breath and a build-up of plaque. There are also concerns that, in some users, vaping could lead to the development of asthma, a persistent cough and breathing difficulties.

### UNREGULATED VAPING PRODUCTS

The number of retailers willing to sell vapes to under-18s is a worry, as the chance of these products being unregulated (and therefore containing illegal chemicals and higher levels of nicotine) is high. A related concern is that the mechanisms inside unregulated products are unlikely to have been tested and safety checked – presenting a possible fire risk if the liquid and battery come into contact.

### SCARCE INFORMATION

The lack of information about the ingredients and potentially harmful chemicals in a vape is troubling. Some vape fluids (unregulated in the UK) contain traces of nuts, which can cause an allergic reaction or anaphylactic shock. To date, medical warnings aren't required on vape packaging – with only medical disclaimers being found on the websites of the various brands.

### VAGUE INGREDIENTS LISTS

Early research has suggested that the chemicals used to produce some strawberry and banana flavour e-liquids can kill cells in the blood vessels and heart. These ingredients aren't identified on the packaging, instead falling under the umbrella term 'natural and artificial flavourings'. Such vague listings mean that consumers aren't aware of the liquid's content so can't identify potential risks.

## Meet Our Expert

Run by the Cambridgeshire and Peterborough Healthy Schools Service (commissioned by Cambridgeshire County Council and Peterborough City Council), Catch Your Breath is a school-based project aimed at young people. Its goal is to embed a proactive, coordinated approach among both primary and secondary schools in discouraging smoking and vaping behaviours.



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