
Electronic cigarettes – what’s the story behind the vapour?

What is an electronic cigarette?

Electronic cigarettes (or e-cigarette as they are known) are battery operated devices which ‘mimic’ cigarettes but they produce a nicotine vapour rather than tobacco smoke.

The majority of e-cigarettes currently available are marketed as a modern alternative to smoking, giving the sensation of smoking but without any tobacco smoke, smells or stains.

Their use has grown rapidly, with an estimated 2.1 million users in Great Britain¹.

Why do people use e-cigarettes?

E-cigarettes deliver nicotine but without the harmful toxins found in tobacco smoke so are considered a safer alternative. But to date, not enough research has been carried out into the long term health risks of using them.

Some people use e-cigarettes to help stop smoking while others use them as a way to carry on smoking while avoiding cigarette smoke.

Can e-cigarettes be used in the workplace?

E-cigarettes are not covered by legislation banning smoking in public places so it is legal to use them in a public place because there is no burning and no smoke is emitted - only odourless vapour.

However, it is up to the employer as whether they allow employees to ‘vape’ them at work or not and whether they can or cannot, should be made clear in the relevant corporate policy. Many employers restrict the use of e-cigarettes to designated smoking areas. MOHS advises that, in the present state of knowledge, this is a prudent policy to follow.

Some employees use e-cigarettes as part of a plan to stop smoking, so employers may want to support their use if this is the case.

However, the vapour from e-cigarettes might be annoying to some employees and could potentially provide a health risk for others through passive inhalation as the long term health effects of e-cigarettes are still unknown.

Are e-cigarettes safe to use?

Compared with smoking (which is the biggest single cause of avoidable death - killing 80,000 people in England each year), they are but there is very little clinical evidence currently available on health effects of e-cigarettes to guarantee the absolute safety of users.

In August 2014, the World Health Organisation (WHO) wanted them banned indoors and raised concerns about harm from nicotine and other chemicals in the vapour to those nearby. However, these concerns about the nicotine vapour were not shared by the health campaign group ASH, or the Electronic Cigarette Industry Trade Association (ECITA).

Public Health England says potential hazards of e-cigarettes mostly come from the degree of purity of nicotine emissions plus long term effects of exposure to the vapour. It says the health risks of passive exposure to e-cigarette vapour are likely to be extremely low.

Despite e-cigarettes often being seen as a safer alternative to smoking, some evidence suggests they may affect lung function. In a briefing document² published by ASH, it stated toxins have been found in a number of studies of e-cigarettes although these were at levels much lower than those found in cigarettes and not at levels which would generally cause concern,

Most of the safety concerns regarding e-cigarettes relate to the absence of appropriate product regulation and inconsistencies in quality control but this will change when they become licensed and regulated in 2016.

Is there a risk to non users from e-cigarette vapour?

Although e-cigarettes do not produce smoke, users exhale a smoke vapour, consisting mainly of propylene glycol and glycerine. The level of nicotine present in an e-cigarette is about one tenth of that generated by a cigarette. So in situations where there is second hand exposure to smoke, such as vehicles or the home, the vapour of an e-cigarette is probably preferable. Any health risk of second hand exposure to propylene glycol vapour is likely to be limited to an irritation of the throat.

Are e-cigarettes effective in helping smokers quit?

The aforementioned ASH briefing document detailed that the most commonly reported reason for using e-cigarettes was “to help me stop smoking tobacco entirely”. Current smokers report that the main reason for using them is to “help me reduce the amount I smoke but not stop completely”.

Nevertheless, survey data suggests that, whatever the reason, about 4 in 10 users in England currently use them in an attempt to quit smoking. Recently published population level data shows they have taken over from ‘over the counter’ nicotine replacement therapy (NRT) as the most popular support people use when quitting smoking and are 60% more effective than NRT in helping smokers quit.

The current situation in the UK is that any nicotine-containing product which claims or implies it can treat nicotine addiction is considered a medicinal product and is subject to regulation by medicine regulator MHRA.

Consequently, e-cigarette manufacturers have avoided making such explicit claims. Furthermore, the WHO has stated that “the electronic cigarette is not a proven nicotine replacement therapy”.

However, growing evidence suggests that e-cigarettes are becoming more reliable in their nicotine delivery and that they have a beneficial impact in reducing subjective cravings and, in turn, number of cigarettes smoked.

One survey³ conducted internationally reported that 72% of users believed that e-cigarettes were beneficial in reducing cravings and withdrawal symptoms while 92% declared that the devices had reduced the number of conventional cigarettes they smoked.

In the same survey, 96% of former smokers claimed that e-cigarettes had helped them quit, and 79% reported a fear that if they stopped using them they would start smoking again.

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¹ Source: Ash survey March 2014

² Source: ASH Briefing: Electronic Cigarettes, June 2014

³ Goniewicz ML, Kuma T, Gawron M, Knysak J, Kosmider L. Nicotine levels in electronic cigarettes. *Nicotine & Tob Res* 2013;15:158-66