



# E-cigarettes Teacher Support Sheet

## UK regulation of e-cigarettes: key facts

- In the UK e-cigarettes are subject to comprehensive regulation including minimum standards of safety and quality, packaging and labelling requirements, and a ban on advertising in print, broadcast, online and other electronic media.
- It is illegal to sell e-cigarette products to anyone under 18 or for adults to buy them on behalf of under-18s.

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## What are electronic cigarettes (e-cigarettes)?

An e-cigarette is a device which allows the user to inhale nicotine without most of the harmful effects of smoking. E-cigarettes work by heating and creating a vapour from a solution that typically contains nicotine, propylene glycol or vegetable glycerine, and flavourings. Unlike cigarettes, e-cigarettes do not burn tobacco and do not produce tar or carbon monoxide. The vapour has been found to contain some toxicants also found in cigarette smoke, but at much lower levels.

E-cigarettes come in a variety of models and can be disposable or rechargeable. They are known by a number of names including vapourisers, shisha pens and e-cigs. The act of using an e-cigarette is called vaping.

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## Who is using e-cigarettes: adults?

An estimated 2.9 million adults in Great Britain currently use e-cigarettes (vape). Of these, 1.5 million are ex-smokers and 1.3 million are current smokers. The principal reasons given for e-cigarette use are to support cutting down or quitting tobacco use and to help avoid relapse to smoking. Over time, the proportion of current vapers who smoke tobacco has fallen and the proportion who are ex-smokers has risen, while use of e-cigarettes among never smokers remains negligible at 0.3%.<sup>1</sup>

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## Who is using e-cigarettes: young people?

Among under-18s, while experimentation with e-cigarettes is fairly common, regular use is rare and almost entirely confined to those who are current smokers or have smoked in the past. In Great Britain around 12% of young people have tried e-cigarettes and 2.6% use them regularly (monthly or more). Among young people who have never smoked, regular use is 0.4%.<sup>2</sup>

## Does the presence of e-cigarettes make smoking seem normal again?

Over the period when e-cigarette use has been increasing in Britain, smoking rates among both adults and young people have declined and are at their lowest levels since records began. There is no evidence to date that e-cigarettes are renormalising smoking; instead, they may have contributed to the continued decline in smoking.

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## How are e-cigarettes regulated?

E-cigarettes are regulated in the UK under the Tobacco and Related Products Regulations 2016. The regulations set minimum standards of safety and quality and impose tight restrictions on advertising and promotion. Separate regulations introduced in October 2015 make it illegal in England and Wales to sell e-cigarette products to anyone under the age of 18 or for adults to buy them on behalf of under-18s.

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## Do e-cigarettes help people to stop smoking?

E-cigarettes are now the most popular stop smoking aid in England.<sup>3</sup> A developing body of evidence shows that they can help smokers to quit or, for those who are not ready to stop in one step, to reduce their cigarette consumption.<sup>4,5</sup> It is estimated that e-cigarettes contribute an additional 16,000–22,000 ex-smokers per year beyond those who would be expected to quit through other means.<sup>6</sup>

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## Are e-cigarettes safe for users?

E-cigarettes are not completely risk free, but based on current evidence they carry a small fraction of the risk of cigarettes. As well as nicotine, e-cigarette liquid and vapour can contain potentially harmful chemicals, although these are either at much lower levels than in cigarette smoke or at levels not associated with serious health risk.

The authors of Public Health England's 2015 independent evidence review concluded that, based on the available peer-reviewed evidence, e-cigarette use is around 95% less harmful than smoking.<sup>7</sup> The Royal College of Physicians reached a similar conclusion in its report on tobacco harm reduction published in April 2016.<sup>8</sup>

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## What about the risks from nicotine?

The great majority of the harm from smoking comes from inhaling tobacco smoke which contains thousands of chemicals, a significant number of which are toxic. While nicotine is the addictive substance in cigarettes, it is relatively harmless. Nicotine in e-cigarettes poses little danger to adult users. However evidence from animal studies indicates that the adolescent brain may be more sensitive to the effects of nicotine.<sup>9</sup> Products containing nicotine are not recommended for young people, with the exception of nicotine replacement therapy to support smoking cessation for those aged 12 years and over.

Nicotine does pose a risk of poisoning if swallowed. To prevent accidental poisoning of children, e-cigarettes and liquids should be stored safely out of their reach.<sup>10</sup>

## Are there risks to bystanders from exposure to e-cigarette vapour?

There is no published scientific evidence of direct harm to bystanders from exposure to e-cigarette vapour and available evidence indicates that any risk of harm is extremely low, especially when compared with tobacco smoke.<sup>11</sup> The authors of PHE's 2015 evidence review found that 'EC [e-cigarettes] release negligible levels of nicotine into ambient air with no identified health risks to bystanders'.<sup>12</sup>

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## Do e-cigarettes pose a fire risk?

There have been instances of e-cigarettes exploding or catching fire. As with all rechargeable electrical equipment, in order to manage fire risk the correct charger for the device should always be used. In addition, e-cigarettes should not be left charging unattended or overnight. Consumers are advised to buy their e-cigarette products from a reputable retailer to ensure they are compliant with UK safety regulations.

<sup>1</sup> [Use of electronic cigarettes \(vapourisers\) among adults in Great Britain](#), ASH, May 2017

<sup>2</sup> Eastwood B. et al, [Electronic cigarette use in young people in Great Britain 2015-16](#), Public Health 149, 45-48, August 2017

<sup>3</sup> Smoking Toolkit Study, <http://www.smokinginengland.info/>

<sup>4</sup> McNeill A., P. Hajek et al, [E-cigarettes – an evidence update: A report commissioned by Public Health England, Public Health England](#), August 2015

<sup>5</sup> Hartmann-Boyce J, McRobbie H, Bullen C, Begh R, Stead LF, Hajek P. [Electronic cigarettes for smoking cessation](#). Cochrane Database of Systematic Reviews 2016, Issue 9. Art. No.: CD010216. DOI: 10.1002/14651858. CD010216.pub3

<sup>6</sup> Beard, Emma, et al. [Association between electronic cigarette use and changes in quit attempts, success of quit attempts, use of smoking cessation pharmacotherapy, and use of stop smoking services in England: time series analysis of population trends](#). BMJ 354 (2016): i4645.

<sup>7</sup> [Underpinning evidence for the estimate that e-cigarette use is around 95% safer than smoking: authors' note](#), Public Health England, August 2015

<sup>8</sup> [Nicotine without smoke: Tobacco harm reduction](#), Royal College of Physicians, April 2016.

<sup>9</sup> Goriounova, N.A. and Huibert D. Mansvelder, H.D., [Short- and Long-Term Consequences of Nicotine Exposure during Adolescence for Prefrontal Cortex Neuronal Network Function](#), Cold Spring Harbor perspectives in medicine. 2012;2(12)

<sup>10</sup> ROSPA, CFOA et al, [Use of e-cigarettes \(vaping\) in the home: advice for parents](#)

<sup>11</sup> Britton, J. and I. Bogdanovica, [Electronic cigarettes: A report commissioned by Public Health England, Public Health England](#), May 2014

<sup>12</sup> McNeill A., P. Hajek et al, [E-cigarettes – an evidence update: A report commissioned by Public Health England](#), Public Health England, August 2015