About ASH Wales

ASH Wales is the only public health charity in Wales whose work is exclusively dedicated to tackling the harm that tobacco causes to communities. Further information about our work can be found at http://www.ashwales.org.uk/

We are engaged in a wide range of activities including:

- Advocating for tobacco control public health policy
- Undertaking tobacco control research projects
- Training young people and those who work with young people to provide factual information about the health, economic and environmental effects of smoking
- Engaging young people and professionals working with young people through the ASH Wales Filter project
- Bringing health information and advice to the heart of the community

We also oversee the Wales Tobacco or Health Network (a network of over 300 individual members) and the Wales Tobacco Control Alliance (an alliance of 35 voluntary and professional bodies in Wales), providing forums for sharing knowledge and best practice. Our newsletters for those interested in tobacco control directly reaches 1,190 subscribers every month, whilst our combined social media channels have a following of over 6,400 individuals and organisations, with the content of our three websites being viewed around 6,000 times every month combined.

ASH Wales has no direct or indirect links with, and is not funded by, the tobacco industry.

ASH Wales response

1. Summary of key points

- All the evidence available at present clearly indicates that electronic cigarettes (e-cigarettes) are significantly less harmful to health than tobacco cigarettes.
- E-cigarettes do contain some toxicants and carcinogens, however, whilst these are at much lower levels than in tobacco cigarettes their presence means e-cigarettes should not be viewed as completely harmless.
- E-cigarettes should never be used for recreational purposes.
- Smokers should be encouraged to completely switch from tobacco cigarettes to e-cigarettes as soon as possible as only then will the full benefits to health emerge.
- There is no evidence to suggest e-cigarette vapour poses any risk to the health of bystanders.
- Further longitudinal research spanning multiple years is required in order to ascertain the long-term implications of e-cigarettes on human health.
- E-cigarettes are both popular and effective as a smoking cessation tool, and as a result should be actively promoted as a smoking cessation option to smokers wishing to quit their deadly habit.
There is currently no evidence to suggest e-cigarettes act as a gateway into smoking among non-smokers or that the use of e-cigarettes renormalises smoking in any way.

Consistent public health messaging is required to eradicate the dangerous misperception held by a considerable proportion of the public that e-cigarettes are just as harmful as tobacco cigarettes. Such misperceptions are damaging to public health as they serve to discourage smokers from switching to e-cigarettes.

The e-cigarette market is dominated by tobacco company-owned brands. This developing situation must be monitored closely given the history of misdirection, inaccuracy and deceit associated with the tobacco industry in carrying out its business.

2. Impact of e-cigarettes on health

ASH Wales has continually reviewed the body of evidence with regards to e-cigarettes and their impact on health. In our view the evidence base provides unequivocal support for the hypothesis that e-cigarettes are definitely less harmful than tobacco cigarettes. Both Public Health England\(^1\) and the Royal College of Physicians\(^2\) have concluded that e-cigarettes are significantly less harmful than smoking. Indeed, the PHE review in 2015 concluded that most toxins responsible for health damage from smoking are absent in e-cigarette aerosol and that those that are present are at much lower levels than in conventional cigarettes. Since these reports were published additional studies in support of this position have been published.

For example, a study published in March 2017\(^3\) compared exposure to nicotine, tobacco-related carcinogens, and toxins among smokers of combustible cigarettes only, former smokers with long-term e-cigarette use only, former smokers with long-term nicotine replacement therapy (NRT) use only, long-term dual users of both combustible cigarettes and e-cigarettes, and long-term users of both combustible cigarettes and NRT. Long-term for the purpose of the study was defined as more than or equal to six months. There were 181 participants in the study, with 36 to 37 members in each group. After confounders were controlled for no clear between-group differences in biomarkers of nicotine intake (salivary or urine) were found. The e-cigarette-only and NRT-only users had significantly lower metabolite levels of one of the most important groups of carcinogens in tobacco, Tobacco Specific Nitrosamines (TSNAs), and also of toxic volatile organic compounds (VOCs) than tobacco smokers or dual users (tobacco smokers also using e-cigarettes or NRT). The levels of exposure in dual users and those only smoking combustible cigarettes to these compounds were similar. The conclusions of the study were that: “Former smokers with long-term e-cigarette–only or NRT-only use may obtain roughly similar levels of nicotine compared with smokers of combustible cigarettes only, but results varied. Long-term NRT-only and e-cigarette–only use, but not dual use of NRTs or e-cigarettes with combustible cigarettes, is associated with substantially reduced levels of measured carcinogens and toxins relative to smoking only combustible cigarettes.”

The reduced harm of e-cigarettes in relation to tobacco smoking has been further evidenced by a study published in May 2017\(^4\) which randomised smokers to switch partially or completely to vaping or stop using nicotine products altogether. Acute changes in select physiological parameters associated with cardiovascular physiology (systolic and diastolic blood pressure (BP) and heart rate (HR)), pulmonary function (FVC, FEV1, and exhaled CO and NO) and adverse events were measured.
in 105 clinically confined subjects who were randomized into groups that either completely or partially switched from conventional cigarettes to e-cigarettes or completely discontinued using tobacco and nicotine products altogether. Use of the e-cigarettes for five days under the various study conditions did not lead to higher BP or HR values, negative respiratory health outcomes or serious adverse health events. Reductions in BP and HR vital signs were observed in most of the participants that either ceased tobacco and nicotine products use altogether or switched completely to using e-cigarettes. Pulmonary function tests showed small but non-statistically significant improvements in FVC and FEV1 measurements in most use groups. Statistically significant (p < 0.05) benefits associated with smoking reduction were also noted in exhaled CO and NO levels. All study products were well tolerated. To summarise the conclusions “The study findings suggest that there are potential cardiovascular and pulmonary function benefits when smokers switch to using e-cigarette products. This further reinforces the potential that e-cigarettes offer smokers seeking an alternative to conventional tobacco products.”

In our view, therefore, the evidence base clearly signifies that e-cigarettes are significantly less harmful to health than conventional tobacco cigarettes. It must be noted however that e-cigarettes have been found to contain some carcinogens and toxins. Whilst these are at much lower levels than in tobacco cigarettes their presence means e-cigarettes should not be viewed as completely harmless. For this reason e-cigarettes should only be used by smokers as a smoking cessation aid and should never be used for recreational purposes. Furthermore, the significant benefits to health apparent when switching to e-cigarettes from tobacco cigarettes will only emerge when the e-cigarette user completely quits smoking. The dual use of e-cigarettes and tobacco cigarettes (i.e. continuing to smoke at the same time as vaping) has no significant long-term benefits to health and as such smokers should be encouraged to completely switch to e-cigarettes and not smoke at all at the earliest opportunity.

In terms of the impact of e-cigarette vapour on bystanders there is no evidence to suggest that this poses any risk to their health. A recent review of the impact of e-cigarettes noted that passive exposure to the aerosol can expose non-users to nicotine but at concentrations that are unlikely to have any significant health impact5. The 2015 PHE review also reported that the amount of nicotine released into the ambient air poses no identifiable risk to bystanders1. While e-cigarette vapour can contain some of the toxicants present in tobacco smoke these are at much lower levels5. One preliminary study found that the concentration of particles in e-cigarette vapour was about 100-fold lower than from tobacco smoke6.

Despite all of the above e-cigarettes are still relatively new on the market and for this reason a great deal of further longitudinal research spanning multiple years is required in order to ascertain the long-term implications on human health. It is essential policy makers continue to review the evidence base in relation to e-cigarettes on a regular basis.

3. E-cigarettes as a smoking cessation tool

There are a limited number of good quality and reliable studies on the topic of e-cigarettes and smoking cessation. Despite this there is increasing evidence to suggest that e-cigarettes are a popular and effective smoking cessation tool. The Smoking Toolkit Study, which provides
information about smoking prevalence and behaviour in England, found that e-cigarettes have overtaken over-the-counter (OTC) nicotine replacement therapy (NRT) as the first choice of stop smoking aid\(^7\) and are 60% more effective in helping smokers quit than NRT bought OTC or quitting unaided\(^8\). The effectiveness was broadly similar to using a prescription medicine (including NRT) with limited professional support but less than using a prescription medicine with specialist behavioural support. The Smoking Toolkit Study estimates that in 2014 e-cigarettes resulted in 20,000 more people quitting smoking who otherwise would not have done so.

It is essential that high-quality studies on this area of vital public health interest continue to be funded and conducted, to develop a wide and deep evidence base for policymaking.

4. E-cigarettes as a gateway to smoking

It has been hypothesised that e-cigarettes could act as a ‘gateway’ to smoking tobacco among children and to the ‘renormalisation’ of smoking. However, current evidence suggests this phenomenon is not occurring, at least in Great Britain. In fact, since e-cigarettes have been on the market, smoking prevalence has declined among children. Whilst some never-smokers are experimenting with e-cigarettes, regular use is rare among children and current e-cigarette use is confined almost entirely to those who have already tried smoking. Indeed, this was the conclusion from a recent study looking at e-cigarette and tobacco cigarette ever and regular use among 11–16 year olds across the UK from five different studies\(^9\).

5. Misperceptions of e-cigarettes

Misperceptions about the relative harms of e-cigarettes do exist. Unlike in England where there is clear messaging from public health authorities about e-cigarettes being less harmful than tobacco cigarettes, with e-cigarettes actively being promoted as a viable smoking cessation tool, in Wales the messaging has been more mixed. As part of the Public Health (Wales) Bill introduced in 2015 the Welsh Government included the proposal to restrict the use of nicotine inhaling devices such as e-cigarettes in enclosed and substantially enclosed public and work places, bringing the use of these devices into line with existing provisions on smoking. This led to confusion among the general public and health professionals alike in terms of whether or not e-cigarettes were just as harmful as tobacco cigarettes, with the latter also uncertain as to whether they should promote e-cigarettes as a smoking cessation alternative to regular smokers unable to quit via traditional Nicotine Replacement Therapy (NRT). Despite the proposals restricting the use of e-cigarettes being removed from the Public Health (Wales) Act passed in 2017, and although Public Health Wales have now published an updated position statement outlining the benefits of a smoker switching completely from smoking tobacco to using e-cigarettes, the misperceptions around the harms of e-cigarettes continue. Indeed, in its position statement Public Health Wales states that “It is increasingly clear that the public is confused about the status of ENDS (Electronic Nicotine Delivery Systems) and their relative benefits and safety”\(^10\). According to the latest YouGov survey commissioned by ASH Wales as many as 23% of respondents thought e-cigarettes were just as harmful as tobacco cigarettes\(^11\). Such misperceptions are concerning as they potentially discourage smokers who might otherwise switch to using e-cigarettes from doing so, or where they have switched make it more likely that they
continue dual use; and may make it more likely that vapers who have quit using e-cigarettes revert back to smoking.

Given the above, consistent public health messaging on the relative risks of using e-cigarettes in relation to tobacco cigarettes is essential. These messages should clearly signify that: (i) e-cigarettes are far less harmful to human health than tobacco cigarettes; (ii) that smokers trying to quit should explore the option of switching to e-cigarettes; and (iii) that if they do decide to quit they should do so completely and not dual use e-cigarettes and tobacco cigarettes.

6. E-cigarettes and the tobacco industry

The e-cigarette market in the UK is now dominated by tobacco company-owned brands such as Vype (British American Tobacco) and blu (Imperial Brands). These companies are predominantly interested in tobacco, by far their larger source of profit, and have a history of misdirection, inaccuracy and deceit in carrying out this business.

It is essential that tobacco companies are never seen as “part of the solution” in public health. Article 5.3 of the Framework Convention on Tobacco Control sets out the UK’s obligation to protect decision making from these multinationals:

“In setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law.”

For this reason, tobacco companies, including their e-cigarette subsidiaries, should not be treated as stakeholders on issues of public health.

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References


11 Fieldwork was undertaken between 16/02/2017 and 19/03/2017, a total of 1120 respondents were surveyed.