

ERS position paper on heated tobacco products

A statement prepared by the ERS Tobacco Control Committee

What are heated tobacco products?

Heated tobacco is a new nicotine delivery system that is commonly referred to as “Heat-not-Burn” by the tobacco industry. Heated tobacco products consist of a small tobacco stick that is heated electronically, rather than burned. The tobacco industry is actively pursuing the market with sales on the rise of products such as ‘iQOS’, ‘glo’, and ‘revo’.

Tobacco industry research claims a 90-95% reduction in harm

According to a press release by the tobacco industry the main ingredient in their heated tobacco products is water, whereas the main ingredient is tar in conventional cigarettes. The tobacco industry claims that there is a 90-95% reduction in harmful and potentially harmful substances and toxicity¹.

Digging deeper into tobacco industry research: not the full picture

However, tobacco companies have not informed the public that some harmful substances were found in high concentrations in their studies, e.g.: particulate matter, tar, acetaldehyde (a carcinogen), acrylamide (a potential carcinogen) and an acrolein metabolite (toxic and irritant)²⁻⁶. Some studies found much higher concentrations of formaldehyde (a potential carcinogen) in heated tobacco products than in conventional cigarettes^{7,8}. Independent research: a substantially higher risk than claimed by the tobacco industry

Historically, there is strong evidence that studies performed by the tobacco industry or by researchers funded by the tobacco industry cannot be trusted⁹⁻¹³. Former employees and contractors have detailed irregularities in the clinical experiments on heated tobacco products performed by the industry¹⁴.

Independent research shows that acrolein (toxic and irritant) is reduced by only 18%¹⁵, formaldehyde (a potential carcinogen) by 26%¹⁵, benzaldehyde (a potential carcinogen) by 50%¹⁵ and the level of TSNAs (carcinogens) is one fifth of those of conventional combustion cigarettes¹⁶. Furthermore, the potentially carcinogenic substance acenaphthene is found to be almost three times higher than in conventional cigarettes¹⁵ and nicotine and tar levels have been found to be almost identical to a conventional cigarette¹⁷. An experimental animal study found that exposure to iQOS led to decreased blood vessel function by 60% - comparable to that induced by cigarette smoke¹⁹. In addition, a study found that users of iQOS may be forced to smoke at a rapid pace which could lead to an increase in intake of carbonyls (potentially carcinogenic) and nicotine, inducing a high level of nicotine dependence¹⁹.

What does ERS recommend?

Even though heated tobacco products may perhaps be less harmful for smokers they nevertheless remain both harmful and highly addictive, and there may be a risk that smokers will switch to heated tobacco products instead of quitting. ERS cannot recommend any product that is damaging to the lungs and human health.

Why does ERS make this recommendation?

Heated tobacco products:

1. Are harmful and addictive
2. Undermine smokers' wish to quit
3. Undermine ex-smokers' wish to stay smoke-free
4. Are a temptation for non-smokers and minors
5. Impose a risk of re-normalisation of smoking
6. Impose a risk of dual use with conventional cigarettes

It is tempting to recommend smokers to switch to heated tobacco products without considering all the consequences. Experiences with e.g. filter cigarettes and light cigarettes have shown that 'safer products' undermine smokers' wish to quit, and they have not improved smokers' health²⁰. Quoting the tobacco industry on 'safer products': "Quitters may be discouraged from quitting, or at least kept in the market longer ..."²¹. We must remember that two to three out of four smokers want to quit²² and almost all smokers regret that they started to smoke^{23, 24}. Also, many smokers want to quit because they want to regain control of their life^{25, 26}, and get cured of their nicotine dependency – this will not happen if they switch to heated tobacco products. A majority of smokers want to quit, and there is not a 'hardening' of smokers²⁷ – on the contrary there are fewer hard core smokers²⁸ and they report being less dependent²⁹. We have no evidence that heated tobacco products are efficient as a smoking cessation aid. Dual use is very frequent for other harm reduction products such as e-cigarettes (approx. 70-80%)³⁰,³¹ and snuff/snus (>40%)³², and dual use of heated tobacco cigarettes combined with conventional cigarettes cannot be ruled out. Finally, ex-smokers and never-smokers might be tempted to start using this 'harmless' product and a renormalisation of smoking in the public might occur³³.

The European Commission underlines that "with regard to the sale, presentation and manufacturing of these products within the European Union, the relevant provisions of the Tobacco Products Directive apply and should be enforced. This includes the ban on misleading elements foreseen by Article 13 and notably any suggestions that a particular tobacco product is less harmful than others"³⁴.

Member states are currently assessing the toxicity of these products. For example, there is concern in the UK "over the potential for non-smokers including children and young people, who would not otherwise start to smoke cigarettes, to take up using these products as they are not without risk. There was also concern over whether use of these products would lead people to take up smoking cigarettes"³⁵.

An expert scientific panel has advised the Food and Drug Administration (FDA) to vote against the tobacco industry's claim that heated tobacco products cut the risk of tobacco-related diseases and that iQOS is less risky than continuing to smoke cigarettes³⁶.

Conclusion

Heated tobacco products, regular tobacco smoking and smokeless tobacco for oral or nasal use are all addictive and carcinogenic to humans^{37, 38}. We should not allow debate around the new tobacco products to distract us from the main job at hand – promoting regulatory measures that we know are effective at reducing smoking and continue to support those who wish to quit smoking.

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