The Cochrane Review of electronic cigarettes for smoking cessation, explained

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action on smoking and health

This short briefing on the updated Cochrane Review *Electronic cigarettes for smoking cessation (Review)* explains what's new, the significance of the findings, what we know about current e-cigarette use and what this all means in practice.

What are Cochrane Reviews?
Cochrane Reviews are high-quality, authoritative systematic reviews carried out by topic-experts analysing all evidence relating to a particular health and social care topic.

What's new about this review?
This review updates the existing review on the effectiveness of electronic cigarettes (e-cigarettes) for smoking cessation published in 2016, including an additional 35 studies published since 2016 and bringing the total number of studies included in the review to 50 thereby providing more certainty in the overall findings.

What does the review say about the effectiveness of e-cigarettes?
The review builds and reaffirms our confidence in the effectiveness of e-cigarettes for smoking cessation, finding that:
- Nicotine containing e-cigarettes are 70% more effective in supporting smokers to successfully quit than nicotine replacement therapy (NRT, like patches and gum) (confidence intervals give a range of 25% to 130% more effective)
- Nicotine containing e-cigarettes are 70% more effective in supporting smokers to successfully quit than nicotine-free e-cigarettes (confidence intervals give a range of equally effective to 190% more effective)

What does the review say about the safety of e-cigarettes?
The review reinforces the relative safety of e-cigarettes compared to smoking. When combining data from all of the studies in the review, there was no evidence that people using nicotine containing e-cigarettes reported more serious health problems than people using nicotine-free e-cigarettes, NRT or no therapy at all. The most commonly reported side effects reported by people using e-cigarettes were throat or mouth irritation, headache, cough and nausea, though these tended to decline over time.

What do we know about current e-cigarette use?
E-cigarettes remain the most popular quitting aid in England. However, e-cigarette use has declined year-on-year for the first time, from 7.1% of the adult population in Great Britain in 2019 to 6.3% in 2020, equating to 3.2 million people. A likely cause of this is increasingly negative perceptions about the safety of e-cigarettes. The proportion of smokers in Great Britain correctly believing vaping is less harmful than smoking has fallen from 48% in 2019 to 39% in 2020 whilst the proportion believing vaping is more or equally harmful has increased from 22% in 2019 to 34% in 2020. *(See ASH's factsheet on adult e-cigarette use for more information)*

What does this all mean in practice?
This authoritative review builds our confidence and certainty in the knowledge that e-cigarettes can be effective smoking cessation aids which current evidence shows are more effective and no more harmful than routinely offered NRT like patches and gum. With an increasing proportion of smokers holding false beliefs about the relative safety of e-cigarettes, it's vital that healthcare professionals and stop smoking services and advisors proactively offer e-cigarettes to smokers attempting to quit and communicate their relative safety and effectiveness for quitting smoking. Failing to reverse negative perceptions of e-cigarette safety would result in many people continuing to smoke, becoming ill and dying prematurely where they might have otherwise quit using an e-cigarette.

Further information:
National Centre for Smoking Cessation and Training – E-cigarettes: A briefing for stop smoking services
Public Health England - E-cigarettes and vaping: policy, regulation and guidance
Primary Care Respiratory Society - The role of e-cigarettes in treating tobacco dependence
Smoking in Pregnancy Challenge Group – E-cigarettes in pregnancy resources
Mental Health & Smoking Partnership – E-cigarettes and mental health

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