

## Transcript October 2022 podcast Let's talk e-cigarettes

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Music Intro.

If asking your mate down the pub about vaping. Here's what they probably say. No one agrees if it's safer or not so, you might as well smoke anyway. Now what your mate needs is a Cochrane review all the facts have been checked at least twice. They find there's a lot that the experts agree on and might give you different advice.

NL: Hi, I'm Nicola Lindson

JHB: and I'm Jamie Hartman-Boyce.

NL: We're both researchers based at the University of Oxford, where we work with the Cochrane tobacco addiction group. Welcome to this edition of let's talk e-cigarettes. This podcast is a companion to a research project being carried out at the University of Oxford, where every month we search the e-cigarette research literature to find new studies. We then use these studies to update our Cochrane systematic review of e-cigarettes for smoking cessation. This is called a living systematic review. In each episode, we start by going through the studies we have found that month and then go into more detail about a particular study or topic related to e-cigarettes.

JHB: This month, we ran our searches on the 1 November we found two records linked to studies we'd already identified, so we don't usually cover those. So instead, what we'll do is we'll move onto this month's deep dive in which we want to talk about our newest update of our Cochrane Living Systematic Review of e-cigarettes for Smoking cessation, which is hot off the press. So we thought what we'd do is kind of paraphrase the press release for this, because we think these are some of the key messages from the review. We also wanted to summarize some of the responses to it that we've received so far. Now, we are recording this on the day that it published, so we don't have that much feedback yet, but we wanted to share some key bits with you. So our new review found the strongest evidence yet that e-cigarettes with nicotine help people to quit smoking better than traditional nicotine replacement therapies such as patches and chewing gums. We found for the first time high certainty evidence that people are more likely to stop smoking for at least six months using nicotine cigarettes or vapes than using nicotine replacement therapies such as patches and gums. Evidence also suggested that nicotine e cigarettes led to higher quit rates than e-cigarettes without nicotine or no stop smoking intervention. But less data contributed to those analyses. This new updated review includes 78 studies and over 220 participants. So that's an addition of 22 studies since our update last year. As a reminder, smoking remains a really significant global health problem I think sometimes we spend a lot of time talking about vaping and forget that smoking is still a really critical issue. According to the World Health Organization, in 2022, 3% of the global population use tobacco despite it killing up to half of its users. We know that stopping smoking reduces the risk of lung cancer, heart attacks, and many other diseases. We also know that though most people who smoke want to quit, many find it difficult to do so permanently. Nicotine patches and gum are safe, effective, and widely used methods to help individuals quit. Data from our review showed that if six in 100 people quit by using nicotine replacement therapy, eight to twelve would

quit by using electronic cigarettes containing nicotine. This means an additional two to six people in 100 could potentially quit smoking with nicotine containing e-cigarettes. Though that sounds like a small number, we have to remember that one in two people who regularly smoke long term will die from that smoking. So any increase in the number of people successfully quitting is a really positive move. So, as press releases do, it has quotes from Nicola and I in it. It quotes me as saying that “electronic cigarettes have generated a lot of misunderstanding in both the public health community and the popular press since their introduction over a decade ago. These misunderstandings discouraged some people from using e-cigarettes as a stop smoking tool. Fortunately, more and more evidence is emerging and provides further clarity. With support from Cancer Research UK, we search for new evidence every month. As part of our living systematic review, we identify and combine the strongest evidence from the most reliable scientific studies currently available. For the first time, this has given us high certainty evidence that e-cigarettes are even more effective at helping people quit smoking than traditional nicotine replacement therapies like patches or gums.” That's the end of that quote. So in studies comparing nicotine cigarettes to nicotine replacement therapy, we found that significant side effects, or what we might call serious adverse events, were rare in the short to medium term. So up to two years, which was the longest length of follow up in our studies, nicotine cigarettes most typically caused throat or mouth irritation, headache, cough and feeling nauseous. However, those effects appeared to diminish over time. The press release then quotes Nicola as saying

NL: “E-cigarettes do not burn tobacco, and as such, they do not expose users to the same complex mix of chemicals that cause diseases in people smoking conventional cigarettes. E-cigarettes are not risk free and shouldn't be used by people who don't smoke or who aren't at risk of smoking. However, evidence shows that nicotine e-cigarettes carry only a small fraction of the risk of smoking. In our review, we did not find evidence of substantial harms caused by nicotine containing electronic cigarettes when used to quit smoking. However, due to the small number of studies and lack of data on long term nicotine containing electronic cigarette usage, so that's usage over more than two years, questions remain about long term effects.”

JHB: We concluded that more evidence, particularly about the effect of newer e-cigarettes with better nicotine delivery than earlier ones, is needed to assist more people quit smoking. Longer term data is also needed.

We also wanted to highlight some responses from key policy actors. So, first of all, this includes Michelle Mitchell, the chief executive at Cancer Research UK. As you know, this review is funded by Cancer Research UK. And she said we welcome this report which adds to a growing body of evidence showing that e-cigarettes are an effective smoking cessation tool. We strongly discourage those who have never smoked from using e-cigarettes, especially young people. This is because they are a relatively new product and we don't yet know the long term health effects. While the long term health effects of vaping are still unknown, the harmful effects of smoking are indisputable. Smoking causes around 550 cancer deaths in the UK every year. Cancer Research UK supports balanced evidence based regulation on e-cigarettes from UK governments which maximizes their potential to help people stop smoking whilst minimizing the risk of uptake, among others. Our friends at the Science Media Center also collected expert feedback on our review before it published. And this includes a quote from Professor Nicholas Hopkinson, who is a professor of Respiratory Medicine and an honorary consultant physician at the National Heart and Lung Institute of Imperial College. He's also Chair of Action on Smoking and Health. And he said Smoking is the leading cause of premature death and disability and a powerful driver of health inequality. There are still more than 6 million

people in the UK who smoke and these funding strongly support making e-cigarettes available is one of the options to help them quit smoking. Cessation services can continue to be confident supporting smokers to switch to e-cigarettes. He also noted that an important, and this is me quoting him again an important real world issue is that these services are woefully under funded. A polluter pays levy on tobacco industry profits would bring in around 700 million to the Department of Health to fund these and other public health measures. The government must move swiftly to implement this and other recommendations from Job to Khan's review Making Smoking Obsolete to deliver on its Smokefree 2030 ambition.

NL: Thank you for all of that, Jamie. So we just want to end on saying this was a big job and a huge team effort and we would really like to thank all of our co-authors, the researchers who provided information on their studies, people who reviewed the draft of our report, and also Cochrane for helping us to get it out into the world. So, that's it from us this month. Thank you for listening. We'll be taking a break for the holiday season in December, but we will be back again in January 2023.

JHB: Happy New Year.

JHB: Please subscribe on iTunes or Spotify and stay tuned for our next episode.

**Musical extract:** Vaping is safer than smoking may help you quit in the end. But remember to mention the findings we have can't tell us what will happen long term, even though we know vaping is safer than smoking we may still find cause for concern. If you're thinking of switching to vaping do it, that's what the experts agree, smoking's so bad for you they all concur that vaping beats burning there's much to learn of effects long term yet to be seen.

JHB: thank you to Jonathan Livingston Banks for running searches to Ailsa Butler for producing this podcast. And to all of you for tuning in music is written with Johnny Berliner and I, and performed by. Our living systematic review is supported by funding from Cancer Research UK, the Cochrane Tobacco Addiction Group also receives core infrastructure funding from the National Institutes for Health Research.

The views expressed in this podcast are those of Nicola and I, and do not represent those of the funder.