Can electronic cigarettes (EC) help people stop smoking and are they safe to use for this purpose?

Findings from the September 2021 Cochrane review

This briefing document brings you the most up to date information on the effect and safety of using electronic cigarettes (ECs) to help people who smoke to stop smoking. This evidence comes from our latest Cochrane Review. Cochrane are a non-profit organisation that review all of the available evidence on a particular topic. Our findings help people to make healthcare decisions.

Key findings

- Our review showed more people probably stop smoking for at least six months using nicotine e-cigarettes than using nicotine replacement therapy, or nicotine-free e-cigarettes.
- Nicotine e-cigarettes may work better than no support for quitting smoking, or than behavioural support alone.
- Nicotine e-cigarettes may not be associated with serious unwanted effects.
- The unwanted effects reported most often with nicotine e-cigarettes were throat or mouth irritation, headache, cough and feeling sick. These effects reduced over time as people continued using nicotine e-cigarettes.

We need more, reliable evidence to be confident about the effects of e-cigarettes, particularly the effects of newer types of e-cigarettes that have better nicotine delivery.

Why this is this topic important?

Stopping smoking reduces the risk of getting lung cancer and other diseases. Many people find it difficult to quit. We want to find out if e-cigarettes can help and if people using them experience any unwanted effects.

In our latest full review (searches up to 1st May 2021) we found 61 studies in 16,759 adults who smoked.

What we are doing?

Each month we are searching for studies that look at the use of e-cigarettes to help people stop smoking. As we search monthly this is called a living systematic review. We look for randomized controlled trials, in which the treatments people received were decided at random. This type of study usually gives the most reliable evidence about the effects of a treatment. We also search for studies in which everyone received an e-cigarette treatment.

What we are looking at?

The studies we looked at compared electronic cigarettes to nicotine replacement therapy (for example, patches or gum), to stop smoking medication (varenicline), to non-nicotine e-cigarettes, and to behavioural support or no support.

NOVEMBER 2021 SEARCH UPDATE... Searches are run and screened monthly. Our November 2021 search identified 1 new study. Between June to October 2021 searches identified 3 new, 4 ongoing studies and 7 papers linked to studies already included in the review. The findings from the searches will be incorporated into an update of our review over the coming months.

See our full review

Visit our webpage

Listen to our podcast
### Stopping smoking

Electronic cigarettes probably help more people to stop smoking than other smoking cessation aids. For every 100 people using nicotine e-cigarettes to stop smoking, 9 to 14 might successfully stop, compared with only 6 of 100 people using nicotine-replacement therapy, 7 of 100 using nicotine-free e-cigarettes, or four of 100 people receiving no support or behavioural support only.

### How long do people continue to use electronic cigarettes?

In response to feedback we are looking at how many people continue to use e-cigarettes at 6 months or longer. In most studies at least half of the participants were still using e-cigarettes at longest follow-up.

### Dual use?

Studies have shown a decrease in exhaled carbon monoxide in dual users (those using nicotine e-cigarettes and tobacco) as compared to participants who exclusively smoked tobacco cigarettes.

### Not all e-cigarettes are the same

We need more information about device type, nicotine content and the role of flavours on the effectiveness of e-cigarettes to help people to quit tobacco cigarettes.

### At a glance

Summary table to show how e-cigarettes compare to nicotine replacement therapy (NRT), non-nicotine e-cigarettes and usual care

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We need more data to be confident of the findings on health measures.