

# Efficacy of electronic cigarettes found to be noninferior to varenicline

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For smokers who are motivated to quit, the quit rate is noninferior for electronic cigarettes (ECs) versus varenicline and is higher for ECs than nicotine replacement therapy (NRT) in the form of nicotine gum, according to a study published online Jan. 29 in *JAMA Internal Medicine*.

Hao-Xing Lin, Dr.P.H., from Peking University in Beijing, and colleagues conducted a [randomized clinical trial](#) at seven sites involving participants who were smoking at least 10 cigarettes per day and were motivated to quit.

A cartridge-based EC, varenicline, and 2 or 4mg nicotine chewing gum were provided for 12 weeks and accompanied by minimal behavioral support. Sustained abstinence from smoking at six months was the primary outcome. A total of 1,068 participants were included and randomly assigned to the EC, varenicline, and NRT arms (409, 409, and 250, respectively).

The researchers found that in the EC, varenicline, and NRT arms, the six-month biochemically validated abstinence rates were 15.7, 14.2, and 8.8 percent, respectively. The quit rate was noninferior in the EC versus the [varenicline](#) arm (absolute risk reduction, 1.47 percent; 95 percent confidence interval, -1.41 to 4.34 percent) and was higher in the EC versus the NRT arm (odds ratio, 1.92; 95 percent confidence interval, 1.15 to 3.21).

During the initial three months, treatment adherence was similar in all study arms; 62.8 percent of participants in the EC arm were still using ECs at six months, while in the other arms, interventions were no longer used.

"As 63 percent of participants in the EC arm still used their products at six months, further studies are needed to assess whether such use is beneficial or harmful," the authors write.

**More information:** Hao-Xiang Lin et al, Efficacy of Electronic Cigarettes vs. Varenicline and Nicotine Chewing Gum as an Aid to Stop Smoking, *JAMA Internal Medicine* (2024). [DOI: 10.1001/jamainternmed.2023.7846](#)

Dorothy K. Hatsukami et al, Electronic Cigarettes for Smoking Cessation—A Clinician's Dilemma, *JAMA Internal Medicine* (2024).  
[DOI: 10.1001/jamainternmed.2023.7855](https://doi.org/10.1001/jamainternmed.2023.7855)

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