

Clinical trial shows that plant-based cytisinicline can help people quit vaping

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Eleven million U.S. adults use e-cigarettes to vape nicotine, and about half of them say that they want to stop, but many have trouble doing so because nicotine is an addictive drug.

A plant-based medication called cytisinicline may be an [effective therapy](#) to help them stop [vaping](#), according to the results of a new clinical trial co-led by an investigator from Massachusetts General Hospital, a founding member of the Mass General Brigham health care system. The trial's findings are [published](#) in *JAMA Internal Medicine*.

In the double-blind randomized clinical trial, 160 adults who vaped nicotine but did not currently smoke cigarettes were assigned to take either oral cytisinicline or placebo tablets for 12 weeks. All participants had weekly behavioral support to stop vaping.

At the end of treatment, participants receiving cytisinicline were more than twice as likely as those receiving placebo to have successfully abstained from vaping for weeks nine to 12 (31.8% vs. 15.1%, $p=.04$). The drug was well tolerated, with comparable rates of side effects between the groups. The study was conducted at Massachusetts General Hospital and four other sites.

"No [medication](#) has been approved by the FDA for vaping cessation in the United States," said lead author Nancy A. Rigotti, MD, director of Massachusetts General Hospital's Tobacco Research and Treatment Center and a professor of medicine at Harvard Medical School. "Our study indicates that cytisinicline might be an option to fill this gap and help adult vapers to stop using e-cigarettes."

The team tested cytisinicline for vaping because the drug binds to nicotine receptors on [brain cells](#). In their previous clinical trial, the research team found that cytisinicline helped people to quit smoking traditional cigarettes. They hypothesized that it might also help people to stop vaping [nicotine](#). "The results of our study need to be confirmed in a larger trial with longer follow-up," said Rigotti, "but they are promising."

More information: Rigotti Na et al, Clinical trial shows that cytisinicline can help people quit vaping, *JAMA Internal Medicine* (2024). [DOI: 10.1001/jamainternmed.2024.1313](https://doi.org/10.1001/jamainternmed.2024.1313).
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