

# New study finds teen vaping probably doesn't lead to smoking

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A new study in *Nicotine & Tobacco Research*, published by Oxford University Press, suggests that adolescent e-cigarette users are more similar to conventional cigarette smokers than they are to non-tobacco

users in terms of demographics and behavioral characteristics. While many public health advocates have suggested that vaping may lead to cigarette smoking, this new research suggests that cigarette smoking may be entirely attributable to adolescents' pre-existing propensity to smoke, rather than their use of electronic cigarettes (e-cigarettes).

The use of e-cigarettes rose drastically between 2011 and 2018 among adolescents, with a corresponding decline in conventional cigarette [smoking](#). In fact, [e-cigarette use](#) is more prevalent today among youth than adults. In the United States in 2018, 20.8% of [high school students](#) and 7.2% of middle school students were current users, showing that vaping is now even more common and faster growing than conventional smoking.

The study examined the relationship between vaping and conventional cigarette smoking using statistical modelling to adjust rigorously for 14 shared risk factors. Major risk factors for both conventional smoking and e-cigarette use include things like parental education and smoking, peer smoking, impulsivity, delinquent behavior, internalizing symptoms (depression, anxiety, etc.), alcohol, marijuana, or other illicit substance use. Data were extracted from surveys conducted in 2015 and 2016 on 8th and 10th graders in the United States.

Among the 12,421 survey respondents, prior to adjusting for shared risk factors, those who had ever used an e-cigarette were approximately 17 times more likely ever to have smoked a conventional cigarette and 36 times more likely to smoke conventional cigarettes currently.

Similarly, prior to adjusting for shared risk factors, relative to those who did not currently use e-cigarettes, respondents were 22 times more likely ever to have smoked conventional cigarette and 16 times more likely to smoke conventional cigarettes currently.

After accounting for the propensity for using e-cigarettes based on the 14 risk factors, however, lifetime and current e-cigarette use did not significantly increase the risk of current conventional cigarette smoking. The current study concludes that e-cigarette use does not appear to be associated with current, continued smoking. Instead, the apparent relationship between e-cigarette use and current conventional smoking is fully explained by the shared risk factors.

"It is very difficult statistically to tease apart the pure effects of e-cigarettes from that of other shared [risk factors](#), when looking at the impacts on conventional cigarette smoking," said the paper's author, Arielle Selya. "My study accounts for this pre-existing propensity to use tobacco using advanced statistics, and shows that [e-cigarette](#) use has little to no effect on conventional smoking. Further research should be conducted to handle this issue very carefully, and current recommendations and policies about e-cigarettes should be re-evaluated."

**More information:** "The Relationship between Electronic Cigarette Use and Conventional Cigarette Smoking Is Largely Attributable to Shared Risk Factors" *Nicotine & Tobacco Research* (2019). [DOI: 10.1093/ntr/ntz157](#)

Provided by Oxford University Press

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