

# Vaping and lung damage in teens: What's the real link?

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(HealthDay)—The purported link between e-cigarettes and lung damage

might be more complicated than first thought, a new study reports.

Teen [e-cigarette](#) users are not more likely to have wheezing episodes than nonusers, researchers found—but only after taking into account a host of other tobacco-related factors also at play.

"We were surprised to find that use of e-cigarettes alone wasn't an issue with increased odds of experiencing wheezing," said lead researcher Alayna Tackett.

"I really think this data shows we need to keep looking to better understand this relationship," added Tackett, an assistant professor of preventive medicine at the University of Southern California Keck School of Medicine, in Los Angeles.

Household rules about the use of tobacco, secondhand exposure to regular cigarettes, and current use of combustible tobacco products appear to drive the observed link between e-cigarettes and wheezing problems among the young, Tackett said.

Once researchers control for those factors, the association between teen e-cigarette use and wheezing becomes statistically insignificant.

However, Tackett noted that this study only looked at wheezing, one of many potential respiratory problems associated with vaping.

"I don't want the takeaway to be that vaping is not bad. This study doesn't answer that question," Tackett said. "The respiratory system is complex, and wheeze is just one indicator of respiratory health."

E-cigarettes continue to grow in popularity among teenagers. There was a 75% increase in vaping among U.S. [high school students](#) between 2017 and 2018, researchers said in background notes.

The concern for lung health is that e-cigarette vapor contains potentially harmful chemicals, researchers said, and some prior studies have linked vaping to bronchitis, coughing and phlegm among teenage users.

For this study, researchers used data on more than 7,000 U.S. teenagers without asthma. The information was gathered as part of the Population Assessment of Tobacco and Health (PATH) study, a long-term study of the effects of tobacco use on kids and adults.

Initially, the data showed that the odds of wheezing in the past year were 74% higher for teens who'd vaped than for those who hadn't, the study authors said.

But when researchers accounted for other variables related to household and personal tobacco use, the association became insignificant.

"It becomes difficult to disentangle which symptoms are driving this association," Tackett said.

Dr. Len Horovitz, a pulmonary specialist with Lenox Hill Hospital in New York City, is skeptical of these findings because teens were required to report their own symptoms in the PATH study, "so the respondents may minimize their symptoms."

"Vaping anything is still a risk for lung injury over time," Horovitz said.

Tackett agreed that future studies on e-cigarette safety need to look at a broader range of lung symptoms, and use scientific equipment to measure lung function.

For example, the study "didn't include objective measures to assess [lung](#) capacity or airway inflammation, because wheeze is an indicator of narrowed or inflamed airways," Tackett said. "Adding those additional

objective measures is really going to be important moving forward so we can better understand this relationship and what's driving these associations."

The new study was published online Oct. 13 in *JAMA Network Open*.

**More information:** The U.S. Surgeon General has more about [e-cigarettes](#).

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