'Dripping' may be a new, dangerous trend for teens who vape

Ryan W. Miller, USA TODAY
Published 5:06 p.m. ET Feb. 6, 2017 | Updated 11:04 a.m. ET Feb. 13, 2017

One in four high school teens who have used e-cigarettes have also tried a potentially dangerous new vaping method called "dripping" — dropping e-cigarette liquid directly onto the hot coils of the device to produce thicker, more flavorful smoke — a new study found.

"Dripping," which differs from normal e-cigarette use that slowly releases the liquid from a wick onto a hot atomizer, may expose users to higher levels of nicotine and to harmful non-nicotine toxins, such as formaldehyde and acetaldehyde — known carcinogens.

Sixty-four percent of the surveyed teens said they dripped for the thicker smoke, 39% for the better flavor and 28% for the stronger throat hit or sensation, according to the study published Monday in the journal Pediatrics.

"When people smoke cigarettes, they say they smoke it for, for lack of a better word, a tingling in the back of the throat," said Suchitra Krishnan-Sarin, the study's lead author and a Yale professor of psychiatry who studies substance abuse behaviors.

Electronic cigarettes are battery-operated devices that heat liquid and turn it into vapor — instead of smoke — which a person inhales. One of the primary concerns about e-cigarette use in teens is increased exposure to nicotine, Krishnan-Sarin said. E-cigarette liquids can contain varying levels of nicotine, and dripping could expose teens to higher levels of the drug, the study states.

While not all e-cigarette products contain nicotine, increased nicotine levels can lead to stronger throat hits, too. The study notes that dripping for these stronger sensations may indicate dripped e-cigarette users are also using nicotine, though researchers did not specifically ask whether they were dripping e-liquid containing nicotine.

"The teen brain has been shown especially sensitive to nicotine," Krishnan-Sarin said.

Yet as e-cigs have increased in popularity, so have alternative uses for electronic smoking devices, such as smoke tricks and competitions. Krishnan-Sarin said a variety of vapor patterns can be produced with thicker clouds, such as "tornadoes and rings."

The study asked 1,874 high school students in Connecticut whether they had ever used an e-cigarette and found that of the 1,080 teens who had, 282 or 26% had also tried dripping.

Additionally, dripping was most prevalent among white males and respondents who had tried more tobacco products or used an e-cigarette more in the past month.

The researchers asked only whether the students had tried dripping, though, not whether the dripping was habitual, an area of study Krishnan-Sarin noted needed more research. She also said that it is not known how dripping compares to conventional cigarettes in terms of toxicity.

Ray Story, CEO of Tobacco Vapor Electronic Cigarette Association, said the segment of e-cig users who drip is just a sliver of users, and he discouraged people from turning to dripping as a vaping method.

"At the end of the day, I don't think they serve any kind of purpose. It's for monster clouds, and these individuals are manufacturing their own hardware," Story said. "Many of them really don't have the background or ability to really put these things together. It's a lot of the 'do-it-yourself' type guys that are into this."

In recent years, electronic smoking products have become increasingly popular among teenagers, some of whom may use an e-cigarette but would not otherwise try a tobacco product. The U.S. Food and Drug Administration announced in May 2016 that it would begin regulating all tobacco products made after February 2007, when the e-cigarettes industry began to grow. Nearly all e-cigarettes would need a separate application for approval, and their sale to minors banned.

Story called e-cigarettes an adult product but said he would rather see a teenager use an e-cigarette than a traditional cigarette. He said the industry does need rules and regulations, but he believes vaping can help combat conventional tobacco use with a less harmful alternative.

Krishnan-Sarin, however, said more research is needed on the long- and short-term effects of e-cigarettes.

Follow Ryan Miller on Twitter @MILLERdfillmore
Read or Share this story: http://usat.ly/2jVzHsL