**Louisville doctor says e-cigarettes likely have 'significant long-term consequences' for teens**

Christie Battista **·** Sep 22, 2023 (Updated Sep 22, 2023)

LOUISVILLE, Ky. (WDRB) -- The U.S. Food and Drug Administration said last year more than one in four middle and high school students use e-cigarettes every day.

Dr. Scott Bickel, a pulmonologist at Norton Children's Hospital, said he's seen an increase in use first-hand.

"People traditionally had a perception that maybe these products were safer, which I don't think ever has been true," Bickel said Friday. "A lot of times, they're doing this to try and self-medicate or self-treat anxiety and other mental health issues."

A new study from the Center for Tobacco Research at the Ohio State University Comprehensive Cancer Center, which followed more than 2,000 people around 17 years old over a four-year period, found people who used e-cigs in the last 30 days were 81% more likely to wheeze, 78% more likely to have shortness of breath and 50% more likely to have bronchitis.

A 2022 study published in Nature Communications found that the effects of e-cigarettes could cause sudden cardiac arrest or increase the risk for ventricular fibrillation. Researchers tested the cardiac impacts of inhaled e-cigarette aerosols and they found that for all e-cigarette aerosols, the animals' heart rate slowed during puff exposures and sped up afterward. Researchers said this is a "fight-or-flight stress response."

They also found that menthol-flavored e-liquids and propylene glycol liquid caused "ventricular arrhythmias and other conduction irregularities in the heart."

Bickel said if effects can be found in just 30 days, the long-term effects are even greater. "How this might turn into cancer or COPD or things like that, we don't have the data," he said. "But we know that there's very likely to be significant long-term consequences to using these products."

Several area school districts have installed vaping detectors in response to health scares related to e-cigarettes. In Madison, Indiana, eight students were hospitalized after using "tainted" vaping products.

In Oldham County Schools, detectors were installed in every bathroom of every high school in the district. They can tell if a student is using a vape pen or one with nicotine or THC. If a student is caught with an e-cigarette, administrators will take it away, give the student an in-school suspension and notify their parents.

"I think, sometimes, people might have stereotypes of who might be vaping," Bickel said. "But we've seen that high-achieving, 'A' students are also using these products."

Norton Children's provides a free program called "Not on Tobacco," which aims to help people 14 to 19 years old quit.

"From a very early age, start to have conversations about these products and about how detrimental they can be," Bickel said.

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