

Your Patients Are Rotting Their Teeth With Vaping

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Karina Irua

Primary care physicians, and especially pediatricians, should consider telling their patients about the long-term oral health problems associated with vaping.

A new study found that patients who use vapes were at a higher risk of developing tooth decay and [periodontal disease](#).

Vapes were introduced to the US market in 2006 as an alternative to conventional cigarettes and have become widely popular among youth. According to a [2022 survey](#) from the US Centers for Disease Control and Prevention, 2.55 million middle and high school students in this country reported using the devices in the previous 30 days.

The new study, [published](#) in the *Journal of the American Dental Association*, expands on an initial case series published in 2020 of patients who reported use of vapes and who had severe dental decay. Karina Irua, BDS, assistant professor of comprehensive care at Tufts University, Boston, Massachusetts, and lead author of the case series, wanted to investigate whether her initial findings would apply to a large population of vape users.

For the new study, Irua and colleagues collected data on 13,216 patients aged 16–40 who attended Tufts dental clinics between 2019 and 2021. All patients had received a diagnosis of tooth decay, had a tooth decay risk assessment on record, and had answered "yes" or "no" to use of vapes in a health history questionnaire.

Patients had records on file of varying types of dental lesions, cavities filled within the previous 3 years, heavy plaque on teeth, inadequate brushing and flossing, and a self-report of recreational drug use and frequent snacking. If patients had these factors on their file, they were at high-risk of developing decay that leads to cavities.

The study found that 79% of patients who responded "yes" to being a current user of vapes were at high risk for dental decay, compared with 60% of those who did not report using the devices.

Materials in the vaping liquids further cause an [inflammatory response](#) that [disrupts an individual's internal microbiome](#), according to [numerous studies](#).

"All the ingredients of vaping are surely a recipe for overgrowth of cavities causing bacteria," said Jennifer Genuardi, MD, an internist and pediatrician at federally qualified community health center Urban Health Plan, in New York City, who was not involved in the study.

Irua said information on patient's vaping habits should be included in routine dental and medical history questionnaires as part of their overall electronic health record.

"Decay in its severe form not only affects one's ability to eat but affects facial aesthetics and self-esteem as well," Irua said.

Genuardi called the findings unsurprising.

"We are learning daily more and more about the dangers of vaping," Genuardi said. "There's a focus of today's research on the effect of actions on our microbiome and the subsequent effects on our health."

Genuardi also said many of her teenage patients do not enjoy dental visits or having cavities filled, which could serve as a useful [deterrent to vaping](#) for a [demographic that has been targeted](#) with [marketing from vape manufacturers](#).

"Cavity formation and the experience of having cavities filled is an experience teens can identify with, so this to me seems like perhaps an even more effective angle to try to curb this unhealthy behavior of vaping," Genuardi said.

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