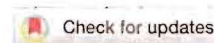


The word on vaping: don't start



Vaping, or use of electronic-cigarettes (e-cigarettes), is still pretty new, and the long-term health effects are relatively unknown. However, 2019 and 2020 reports of serious health problems developing after vaping, some requiring hospital stays for seizures and serious (even deadly) lung damage, have been headline news.^{1,2}

WHAT IS VAPING?

Vaping looks a lot like smoking a regular cigarette, but instead of burning tobacco, users are heating up a liquid, creating a fine vapor that is inhaled. E-cigarettes (also known as vape pens) are used for vaping. They come in a variety of sizes and shapes. Some are small and may be difficult to spot. They may look like a real cigarette, pipe, or even like a USB drive. Others are larger, like the size of a cigarette package.

WHAT IS IN THE VAPOR?

It's hard to say exactly what is in the vapor being inhaled. Studies have found that these vapors may contain chemicals that are known to cause cancer or serious lung diseases, like asthma or chronic obstructive pulmonary disease.^{3,4} Some sweet flavors may also increase your risk of developing cavities.⁵

Just like smoke from tobacco cigarettes, the vapor in e-cigarettes typically contains nicotine.⁶ Even products that say they are "nicotine-free" or "nonnicotine" may contain this addictive agent.⁷

CAN VAPING HELP ME QUIT SMOKING?

Research on whether vaping is a good step toward stopping smoking is mixed. Some studies suggest it may help; others seem to show that it can lead some people not only to vape but to smoke tobacco as well.⁸ The Centers for Disease Control and Prevention says if you have picked up vaping to quit smoking tobacco and want to stop, do not go back to tobacco.⁹ Professional health care groups like the American Dental Association¹⁰ and the American Medical Association¹¹ have called for a ban on vaping products and urge smokers who want to quit to use methods approved by the US Food and Drug Administration. Talk to your dentist or physician about suggestions that may be right for you.

SUMMARY

The long-term effects of vaping are unclear, but research and reports of health effects suggest that vaping may not be helpful

and may be harmful. Don't pick up the habit. If you have started vaping, talk to your dentist or physician about ways to quit. ■

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1. US Food and Drug Administration. Tobacco product problem reports. Available at: <https://www.fda.gov/tobacco-products/tobacco-science-research/tobacco-product-problem-reports#ends>. Accessed January 14, 2020.

2. Gaub KL, Hallyburton S, Samanic C, et al. Patient characteristics and product use behaviors among persons with e-cigarette, or vaping, product use-associated lung injury: Indiana, June-October 2019. *MMWR Morb Mortal Wkly Rep*. 2019;68(49):1139-1141.

3. Centers for Disease Control and Prevention. E-cigarettes shaped like USB flash drives: information for parents, educators, and health care providers. Available at: <https://www.cdc.gov/tobacco/infographics/youth/pdfs/e-cigarettes-usb-flash-508.pdf>. Accessed January 14, 2020.

4. Kaiser MA, Prasad S, Liles T, Cucullo L. A decade of e-cigarettes: limited research & unresolved safety concerns. *Toxicology*. 2016;365:67-75.

5. Kim SA, Smith S, Beauchamp C, et al. Cariogenic potential of sweet flavors in electronic-cigarette liquids. *PLoS One*. 2018;13(9):e0203717.

6. Romberg AR, Miller Lo EJ, Cuccia AF, et al. Patterns of nicotine concentrations in electronic cigarettes sold in the United States, 2013-2018. *Drug Alcohol Depend*. 2019;203:1-7.

7. Peace MR, Baird TR, Smith N, Wolf CE, Poklis JL, Poklis A. Concentration of nicotine and glycols in 27 electronic cigarette formulations. *J Anal Toxicol*. 2016;40(6):403-407.

8. Dunbar MS, Davis JP, Rodriguez A, Tucker JS, Seelam R, D'Amico EJ. Disentangling within- and between-person effects of shared risk factors on e-cigarette and cigarette use trajectories from late adolescence to young adulthood. *Nicotine Tob Res*. 2019;21(10):1414-1422.

9. Perrine CG, Pickens CM, Boehmer TK, et al. Lung Injury Response Epidemiology/Surveillance Group. Characteristics of a multistate outbreak of lung injury associated with e-cigarette use, or vaping: United States, 2019. *MMWR Morb Mortal Wkly Rep*. 2019;68(39):860-864.

10. American Dental Association. Official policies and statements on tobacco use and vaping. Available at: <https://www.ada.org/en/advocacy/current-policies/tobacco-use>. Accessed January 14, 2020.

11. Berg S; AMA. Stop sales of e-cigarettes that lack FDA approval. Available at: <https://www.ama-assn.org/delivering-care/public-health/ama-stop-sales-e-cigarettes-lack-fda-approval>. Accessed January 14, 2020.