

The Vermont Department of Health follows the U.S. Surgeon General's recommendation urging parents, teachers, health care providers, and others who influence youth, to discourage tobacco use in any form, including e-cigarettes.

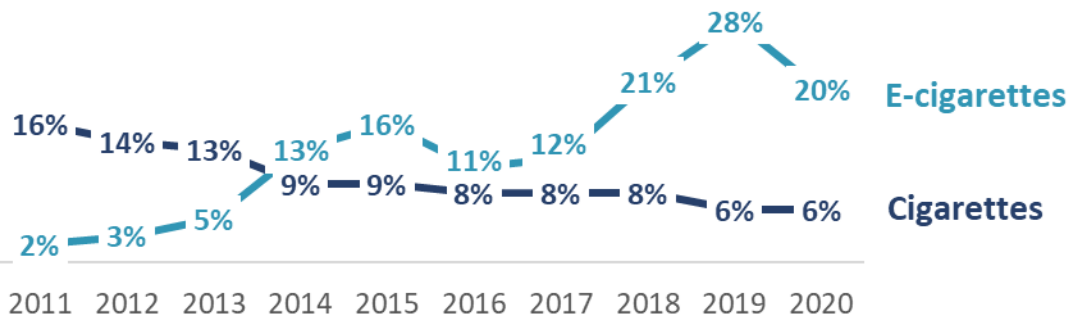
The Vermont Department of Health calls attention to the harm of e-cigarette use among youth and young adults, including exposure to nicotine. E-cigarettes, also called personal vaporizers, vape pens, e-cigs, e-hookah, or vapes are devices that typically deliver nicotine, flavorings and other additives to users through an inhaled aerosol. The aerosol is harmful to the user and those who breathe the chemicals secondhand.



Youth E-Cigarette Use Has Risen Rapidly

Since 2014, e-cigarettes have been the most commonly used tobacco product among both middle and high school students.¹

Youth e-cigarette use increased more than 10-fold between 2011 and 2020.



* E-cigarette use defined as use on at least one day in the past 30 days.

Source: National Youth Tobacco Survey, 2011-2020

- In 2019, 50% of Vermont high school students have ever tried and 26% currently use e-cigarettes. The rate of use increased significantly with each increasing grade from 9th to 12th.²
- High rates of vaping daily (23%) or frequently (39%) among high school students can indicate higher rates of nicotine dependence.¹



E-Cigarettes Harm Health

Most e-cigarettes contain nicotine and other harmful and potentially harmful ingredients.

- Nicotine changes adolescents' brain cell activity in the parts of the brain responsible for attention, learning and memory.^{3,4}
- Vaping is linked to a substantially increased risk of COVID-19 among teens and young adults.⁵
- Vaping cannabis, especially in concentrate form called "honey oil," "shatter," or "budder," can expose users to very high levels of THC. Impact from long-term use of

concentrates are not known but exposure to TCH is a health concern for youth and young adults.

- E-cigarettes can contain harmful ingredients including ultrafine particles, heavy metals and flavorings such as diacetyl, a chemical linked to serious lung disease.⁷



Flavors and Marketing Attract Youth

E-cigarettes are promoted with flavors and marketing strategies known to appeal to youth.

- The PACE - Vermont survey found 86% of 12- to 17-year-olds who had ever used an e-cigarette, began with a flavored product.⁸
- E-cigarettes come in thousands of flavors, including menthol. The flavoring menthol is promoted to youth of color and young adults and is harder to quit. ^{6,8}

Recommendations:

Advise Youth on Dangers of Nicotine and Other Harms

Almost all e-cigarettes contain nicotine, a highly addictive chemical, increasing risk of future smoking. Vaping can also decrease the lungs' ability to fight off infections by disrupting the ways the body protects itself, leaving youth more vulnerable to infections like bronchitis and the flu, which can lead to pneumonia.⁹

Advise youth and young adults to never start using e-cigarettes. Teens 13 – 17 years of age can text “Start My Quit” to 36072 or visit mylifemyquit.org for free, confidential quit help.

Be a Role Model

Set a positive example to youth by living tobacco-free. Even if you're quitting tobacco, share the reasons why you want to be tobacco-free and ask for support in your journey.

Create a No Tobacco Policy

Make your home and vehicle tobacco-free. Keep tobacco products, including e-cigarette devices and liquid nicotine, locked and out of reach of children.

References:

¹ Youth Tobacco Use: Results from the National Youth Tobacco Survey (2020). <https://www.fda.gov/tobacco-products/youth-and-tobacco/youth-tobacco-use-results-national-youth-tobacco-survey>

² Vermont Department of Health. “[Vermont Youth Risk Behavior Survey](#).” High School Survey. 2019.

³ [Benowitz NL. Nicotine addiction. N Engl J Med. 2010;362\(24\):2295–2303. doi:10.1056/NEJMr0809890.](#)

⁴ [U.S. Surgeon General. Surgeon General’s Advisory on E-cigarette Use Among Youth. e-cigarettes.surgeongeneral.gov. 2018.](#)

⁵ Gaiha, S. M., Cheng, J., & Halpern-Felsher, B. (2020). Association between youth smoking, electronic cigarette use, and Coronavirus Disease 2019. *Journal of Adolescent Health*

⁶ Hsu, G., Sun, J. Y., & Zhu, S. H. (2018). Evolution of electronic cigarette brands from 2013-2014 to 2016-2017: analysis of brand websites. *Journal of medical Internet research*, 20(3).

⁷ [E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General](#). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2020.

⁸ https://www.healthvermont.gov/sites/default/files/documents/pdf/HS_Tobacco_Flavors_Snapshot_2020_01_22.pdf

⁹ Wang J, Zhang T, Johnston CJ, et al. Protein thiol oxidation in the rat lung following e-cigarette exposure. *Redox Biol.* 2020;37:101758. doi:10.1016/j.redox.2020.101758