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Health Risks of E-cigarettes

E-cigarettes and other types of 'vaping' devices are still fairly new, and more research is needed over a longer period of time to know what the long-term health effects may be. Research on these devices is complicated by the fact that many different devices are being sold, and many different chemicals can be used in them.

The most important points to know are that the long-term effects of e-cigarettes are still unknown, and all tobacco products, including e-cigarettes, can pose health risks to the user. For example, e-cigarettes can irritate the lungs and can have negative effects on the heart.

Most e-cigarettes contain nicotine, which is addictive and may lead to the use of tobacco products among some people who would otherwise not use tobacco. There is also some evidence that nicotine harms the brain development of teenagers.

While the possible long-term health effects of e-cigarettes aren't yet clear, in 2019 there were reports of **serious lung disease** in some people using e-cigarettes or other vaping devices. Symptoms included:

- Cough, trouble breathing, or chest pain
- Nausea, vomiting, or diarrhea
- Fatigue, fever, or weight loss

Some cases were severe enough to require hospitalization, and some people died from their illness. However, it's not yet clear if all these cases had the same cause. There are a huge number of different vaping devices on the market, and an even larger number of different chemicals (in the form of e-juice) that can be used in them, including ones that users sometimes add themselves. Many (but not all) of the illnesses occurred in people who reported using modified devices that contained THC, the mind-altering chemical in marijuana, as well as vitamin E acetate. .

You can learn more about e-cigarettes and similar devices in [What Do We Know About E-cigarettes?](#)¹

Hyperlinks

1. www.cancer.org/cancer/risk-prevention/tobacco/e-cigarettes-vaping/what-do-we-know-about-e-cigarettes.html

References

American Cancer Society. *Cancer Prevention & Early Detection Facts & Figures 2019-2020*. Atlanta, Ga: American Cancer Society; 2020.

Centers for Disease Control and Prevention (CDC). Outbreak of Lung Illness Associated with E-cigarette Use, Vaping. February 25, 2020. Accessed at https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html on October 16, 2020.

Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, and Office on Smoking and Health. *How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: A Report of the Surgeon General*. 2010. Publications and Reports of the Surgeon General. Atlanta (GA): Centers for Disease Control and Prevention (US). Accessed at <http://www.ncbi.nlm.nih.gov/books/NBK53017/> on October 16, 2020.

Drope J, Cahn Z, Kennedy R, et al. Key issues surrounding the health impacts of electronic nicotine delivery systems (ENDS) and other sources of nicotine. *CA Cancer J Clin*. 2017;87(6):449-471. Accessed at <https://doi.org/10.3322/caac.21413> on October 16, 2020.

National Academies of Sciences, Engineering, and Medicine. *Public Health Consequences of E-Cigarettes*. Eaton DL, Kwan LY, Stratton K, eds. 2018. Washington, DC: National Academies Press. Accessed at <https://doi.org/10.17226/24952> on October 16, 2020.

US Department of Health and Human Services. *E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*. Atlanta (GA): US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center of Chronic Disease Prevention and Health Promotion, Office on Smoking and Health;

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