

E-cigarettes and Vaping

E-cigarettes, vapes, vape or hookah pens, e-pipes, and other vaping products are battery-powered devices that allow users to inhale, or vape, aerosolized liquid (e-juice). Beginning August 1, 2019, Minnesota law prohibits the use of these products indoors where cigarette use is prohibited, including bars and restaurants.



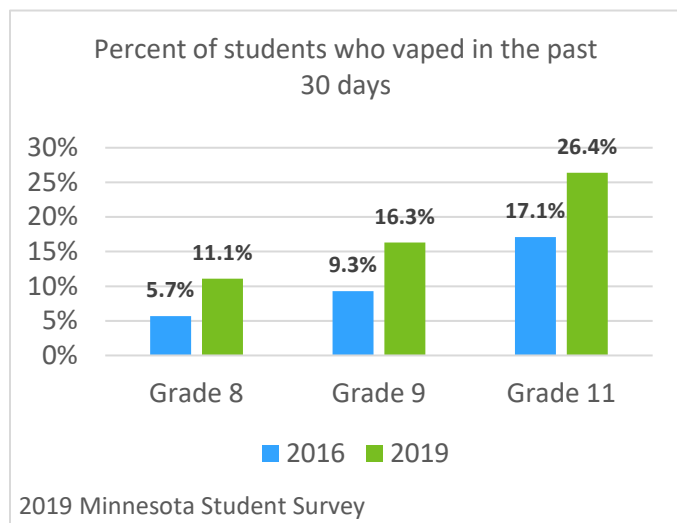
E-cigarettes are the most commonly used commercial tobacco product among youth,^[1] so it is critical that public health officials and the general public understand the risks of using them.

Youth e-cigarette use is a public health threat.

Among Minnesota students, e-cigarettes are used at five times the rate of conventional cigarettes.^[2]

8th grade e-cigarette use nearly doubled from 2016 to 2019, and one in four 11th graders now use e-cigarettes.^[2]

Additionally, nearly 6 percent of adults currently use e-cigarettes, compared to less than 2 percent in 2010. Young adults are more likely than other adults to use them, as nearly 13 percent of adults age 18-24 use e-cigarettes.^[3] The use of multiple tobacco products – dual use – is common: 37 percent adult e-cigarette users also use cigarettes.^[3]



E-cigarettes are not safe for youth.

Nearly all e-cigarettes contain nicotine.^[4] Nicotine is highly addictive and can harm the developing adolescent brain.^[1, 5, 6] Because the brain is still developing until about age 25, youth and young adult exposure to nicotine can lead to addiction and disrupt attention and learning.^[1] No amount of nicotine is safe for youth.

Over one in five of Minnesota high school students who has tried e-cigarettes has never tried any conventional tobacco products.^[7] Recent evidence suggests that, compared to youth who have never used them, youth who have tried e-cigarettes are much more likely to start smoking in the future.^[8]

E-cigarettes attract kids despite the dangers.

- E-cigarettes are available in fruit and candy flavors; flavored tobacco products appeal to youth.^[9]
- A majority of Minnesota high school students (88.4%) have seen ads for e-cigarettes in the past 30 days.^[7]
- E-cigarettes are available for purchase online.^[10]

E-cigarette aerosol contains harmful chemicals.

Similar to secondhand smoke from cigarettes and other tobacco products, aerosol from e-cigarettes (often called vapor) contains harmful and potentially harmful constituents, such as ultrafine particles, heavy metals like nickel, tin, and lead, and other cancer-causing chemicals.^[1]

Exposure may increase risk of breathing problems.

Exposure to e-cigarette aerosol may be a trigger for both kids and adults with breathing problems, such as asthma, increasing their risk of severe asthma attacks. In Minnesota, kids with asthma who are exposed to e-cigarette aerosol are more likely to report symptoms than those not exposed, such as coughing, wheezing, shortness of breath, or chest pain.^[11]

E-cigarettes are not proven to help people quit smoking.

E-cigarettes are not FDA-approved smoking quitting aids, and they are not proven to help people quit. Free quitting medications and counseling are available to all Minnesotans by visiting QUITPLAN[®] Services at www.quitplan.com or by calling 1-888-354-PLAN (7526).

More free quit smoking resources: www.health.mn.gov/quit

Visit www.health.mn.gov/ecigarettes to learn more.

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To obtain this information in a different format, call: 651-201-3535. Printed on recycled paper.

1. U.S. Department of Health and Human Services, *E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*. 2016, 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: Atlanta, GA.
2. Health, M.D.o., et al., *Minnesota Student Survey*. 2019.
3. Health, C.M.a.t.M.D.o., *Tobacco Use in Minnesota: 2018*. 2018.

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4. Marynak, K.L., et al., *Sales of Nicotine-Containing Electronic Cigarette Products: United States, 2015*. Am J Public Health, 2017. **107**(5): p. 702-705.
5. England, L.J., et al., *Developmental toxicity of nicotine: A transdisciplinary synthesis and implications for emerging tobacco products*. Neurosci Biobehav Rev, 2017. **72**: p. 176-189.
6. Goriounova, N.A. and H.D. Mansvelder, *Short- and long-term consequences of nicotine exposure during adolescence for prefrontal cortex neuronal network function*. Cold Spring Harb Perspect Med, 2012. **2**(12): p. a012120.
7. Health, M.D.o., *Teens and Tobacco in Minnesota: Highlights from the 2017 Minnesota Youth Tobacco Survey*. 2018.
8. Berry, K.M., et al., *Association of electronic cigarette use with subsequent initiation of tobacco cigarettes in US youths*. JAMA network open, 2019. **2**(2): p. e187794-e187794.
9. U.S. Department of Health and Human Services, *Preventing Tobacco Use Among Youth and Young Adults. A Report of the Surgeon General*. 2012.
10. U.S. Food and Drug Administration. *FDA and Public Health Experts Warn About Electronic Cigarettes*. 2012; Available from: <http://www.fda.gov/NewsEvents/Newsroom/Pressannouncements/ucm173222.htm>.
11. Helgertz, S. and K. Norlien, *Tobacco use and asthma*. 2019, Minnesota Department of Health: Saint Paul, Minnesota.