

Electronic Cigarettes

What are electronic cigarettes?

Electronic cigarettes (e-cigarettes), also known as electronic nicotine delivery systems, are battery-powered devices that allow users to inhale aerosolized liquid (e-liquid), which may contain nicotine and other potentially harmful chemicals.¹

E-cigarettes come in disposable and reusable varieties. Some may resemble conventional cigarettes or common household items, such as pens or USB memory sticks.² E-cigarettes and e-liquid are also sold in a range of dessert and fruit flavors, and many brands allow users to refill e-liquid with store-bought or homemade versions.

Are e-cigarettes safe to use?

E-cigarettes are not regulated by the FDA and the health risks are unknown.

Aerosols from some e-cigarettes contain chemicals known to cause cancer, as well as nicotine;³ there is no way for users to know how much nicotine or other potentially harmful chemicals they are inhaling.

Can e-cigarettes help people quit smoking?

E-cigarettes are not FDA-approved smoking cessation aids, and there is no body of evidence that proves e-cigarettes help people quit smoking.

FDA-approved cessation aids, such as patches, gum, or lozenges, provide specific levels of nicotine. Without regulation there is no way to know how much nicotine or other potentially harmful chemicals are contained in e-cigarettes. Some e-cigarettes have been shown to contain nicotine despite being labeled as nicotine-free.¹

Who uses e-cigarettes?

E-cigarette use has increased rapidly since the products entered the market. Among adults, the number of those

who have tried e-cigarettes has nearly doubled since 2010.⁴ Additionally, nearly 13 percent of Minnesota high school students have used or tried e-cigarettes in the past 30 days.⁵

How might e-cigarette use harm kids?

Many e-cigarettes contain nicotine, which is highly addictive and known to harm the developing adolescent brain.⁶ No amount of nicotine is safe for youth.

E-cigarettes may be especially harmful if they:

- Lead to regular nicotine use or use of other tobacco products. E-cigarette use among youth has been linked to increased intentions to smoke cigarettes.⁷
- Glamorize or renormalize tobacco use, including exposing children to images of tobacco use.
- Expose youth involuntarily to aerosolized nicotine or other psychoactive substances.
- Result in poisonings through ingestion, inhalation, or absorption of nicotine liquid on the skin; in high doses nicotine may be extremely toxic or even fatal.⁸ In Minnesota, child poisonings related to e-cigarettes increased sharply from 2011-2013. Symptoms have included nausea and vomiting.

Despite potential harms, e-cigarettes may still appeal to young people.

- E-cigarettes are available in fruit and candy flavors; flavored tobacco products appeal to youth.⁹
- E-cigarettes are available for purchase online.¹⁰
- E-cigarettes are sometimes advertised using celebrity endorsements.

How does Minnesota law treat e-cigarettes?

E-cigarettes use is prohibited in some schools, universities, and government and health care facilities.

Minnesota law also requires that e-cigarettes are taxed as tobacco products, and retailers in Minnesota cannot sell e-cigarettes to minors.¹¹

Additionally, retailers selling e-cigarette are required to be licensed, are subject to annual compliance checks, and in most cases must keep e-cigarettes behind the counter. E-cigarette sales from kiosks are also prohibited, and e-cigarette liquids must be sold in child-resistant packaging.

What more can be done to keep kids from using e-cigarettes and other tobacco products?

There are a number of strategies recommended by the U.S. Surgeon General for reducing tobacco use among youth.

*Increasing in the price of tobacco.*¹²

Price increases, including tobacco excise taxes, are effective in reducing youth tobacco use; youth are sensitive to price increases.¹³

*Implementing smoke-free indoor air policies.*¹⁴

E-cigarette use is currently allowed in many indoor spaces, such as restaurants and workplaces. Minnesota cities and counties may adopt additional e-cigarette provisions within their communities.

*Restricting youth access to tobacco products.*¹⁵

The U.S. Surgeon General identifies restrictions on sales including state or local bans on entire categories of tobacco products, as a strategy for reducing use.¹⁶

*Restricting advertising and promotion of tobacco products.*¹⁷

E-cigarettes are not subject to the same restrictions as conventional cigarettes and are advertised heavily on TV, radio, the internet and in convenience stores. Nearly 60 percent of Minnesota high school students have seen ads for e-cigarettes on TV, and nearly half have seen ads in convenience stores and other stores, in the past 30 days.¹⁸

Where can I find more information?

Visit www.health.mn.gov/ecigarettes.

¹ U.S. Food and Drug Administration - Division of Pharmaceutical Analysis. "Evaluation of e-cigarettes." May 4, 2009. <http://www.fda.gov/downloads/Drugs/scien-ceResearch/ucM173250.pdf> (accessed December 6, 2013).

² U.S. Food and Drug Administration. "Electronic Cigarettes (e-Cigarettes)," January 10, 2014.

<http://www.fda.gov/newsevents/publichealthfocus/ucm172906.htm>. (accessed January 22, 2014).

³ U.S. Food and Drug Administration, *Evaluation of e-cigarettes*.

⁴ Centers for Disease Control and Prevention. About One in Five U.S. Adult Cigarette Smokers Have Tried an Electronic Cigarette, 2013.

http://www.cdc.gov/media/releases/2013/p0228_electronic_cigarettes.html (accessed December 6, 2013).

⁵ Minnesota Department of Health. Teens and Tobacco in Minnesota, 2014 Update: Executive Summary. St. Paul, Minnesota, November 2014.

⁶ U.S. Department of Health and Human Services. The Health Consequences of Smoking - 50 Years of Progress. A Report of the Surgeon General, 2014.

⁷ Bunnell, Rebecca E., Israel T. Agaku, René A. Arrazola, Benjamin J. Apelberg, Ralph S. Caraballo, Catherine G. Corey, Blair N. Coleman, Shanta R. Dube, and Brian A. King. "Intentions to Smoke Cigarettes Among Never-Smoking U.S. Middle and High School Electronic Cigarette Users, National Youth Tobacco Survey, 2011–2013." *Nicotine & Tobacco Research*, August 20, 2014. doi:10.1093/ntr/ntu166.

⁸ U.S. Department of Health and Human Services, *50 Years*.

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," July 22, 2009.

<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm173222.htm>.

¹¹ Minnesota Department of Revenue. "Revenue Notice # 12-10: Tobacco Products Tax - Taxability - E-Cigarettes," October 22, 2012.

http://www.revenue.state.mn.us/law_policy/revenue_notices/RN_12-10.pdf.

¹² U.S. Department of Health and Human Services, *50 Years*.

¹³ U.S. Department of Health and Human Services, *Preventing Tobacco Use*.

¹⁴ U.S. Department of Health and Human Services, *50 Years*.

¹⁵ Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs - 2014. U.S. department of Health and Human Services, Center for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

¹⁶ U.S. Department of Health and Human Services, *50 Years*.

¹⁷ U.S. Department of Health and Human Services, *Preventing Tobacco Use*.

¹⁸ Minnesota Department of Health, *Teens and Tobacco*.