

The Vermont Department of Health calls attention to the potential harms of using electronic cigarettes, including nicotine addiction and exposure to chemicals. E-cigarettes, also called personal vaporizers, vape pens, e-cigars, e-hookah, or vaping devices, are products that produce an aerosolized mixture containing flavored liquids and nicotine that is inhaled by the user. Health care professionals play a key role in educating patients on maintaining lung health by reducing exposure to lung irritants and using proven effective and safe smoking cessation medications.

*The Department of Health urges health professionals to recommend FDA-approved quit methods to their patients, available free through 802Quits, and educate parents and patients on the potential harms of e-cigarettes.*

## Not an FDA-Approved Quit Aid

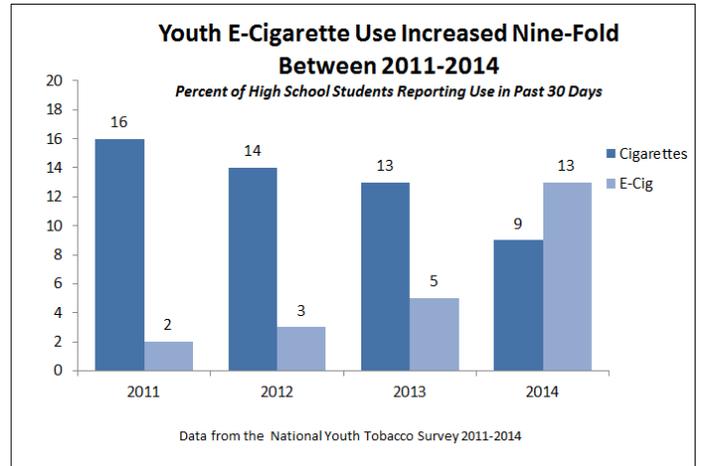
E-cigarette manufacturers market their products as tools to help quit smoking, but studies show that e-cigarettes can actually deter cessation.

- The **American College of Physicians** has warned that there is insufficient evidence that e-cigarettes help people quit smoking.<sup>1</sup>
- A study in the **American Journal of Public Health** found that smokers who used e-cigarettes were 59 percent less likely to quit smoking than smokers who had never used e-cigarettes.<sup>2</sup>

## Not Harmless “Water Vapor”

E-cigarettes contain a concentrated liquid nicotine solution and toxic chemicals that create aerosols.

- Nicotine is a highly addictive neurotoxin that affects the cardiovascular and central nervous systems, causing blood vessel constriction and increasing blood pressure.<sup>3</sup>
- E-cigarette use can cause lung irritation and inflammation similar to conventional cigarettes.<sup>4</sup>
- The FDA tested and found that e-cigarette samples contained tobacco-specific nitrosamines and toxic chemicals.<sup>5</sup>



## Youth Use is Rising Rapidly

E-cigarette use among youth has steadily increased and nicotine use negatively affects youth brain development.

- From 2011-2014, past 30 day use of e-cigarettes increased nine-fold for high school students in the U.S. (1.5% to 13.4%). In 2014, the rate of e-cigarette use among high school students was higher than for conventional cigarettes (13.4% and 9.2%, respectively).<sup>6</sup>
- The **American Academy of Family Physicians** is concerned that e-cigarettes are a gateway for youth nicotine addiction.<sup>7</sup>
- The **American Academy of Pediatrics** warns that nicotine is highly addictive and adversely affects brain development from the time a child is in utero into adolescence.<sup>8</sup>

## Recommendations for Providers

### Advise Parents, Youth and the Public

E-cigarettes contain nicotine, a highly addictive substance that is especially harmful to youth and pregnant women. E-cigarette users may also be exposed to toxins.

### Encourage Cessation Using Proven Quit Aids

Refer users to 802Quits services to receive free phone, in-person, or online cessation support and free Nicotine Replacement Therapy.

### Educate about Clean Indoor Air

There is potential harm of secondhand exposure from aerosol emissions, especially for children.

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<sup>1</sup> Crowley, R.A., for the Health Public Policy Committee of the American College of Physicians. (2015). Electronic Nicotine Delivery Systems: Executive Summary of a Policy Position Paper From the American College of Physicians. *Ann Intern Med*, 162, 583-584.

<sup>2</sup> Galindo, Y. (2015) Smokers who use e-cigarettes less likely to quit [Press release]. Retrieved from <https://health.ucsd.edu/news/releases/Pages/2015-04-16-smokers-less-likely-to-quit-with-ecigs.aspx>

<sup>3</sup> C Everett Koop, M. D. (1988). *Health Consequences of Smoking: Nicotine Addiction a Report of the Surgeon General 1988*. DIANE Publishing.

<sup>4</sup> Offermann, F. (2014). The Hazards of E-Cigarettes. *ASHRAE JOURNAL*, 56(6), 38-44.

<sup>5</sup> FDA. (2014). Summary of Results: Laboratory Analysis of Electronic Cigarettes Conducted by FDA. Retrieved from: <http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm173146.htm>.

<sup>6</sup> Centers for Disease Control and Prevention. Tobacco Use Among Middle and High School Students –United States, 2011-2014. *MMWR* 64(14); 381-385.

<sup>7</sup> American Academy of Family Physicians. (2015). Electronic cigarettes. Retrieved from: <http://www.aafp.org/about/policies/all/e-cigarettes.html>.

<sup>8</sup> American Academy of Pediatrics. (2015). State Advocacy Focus E-Cigarettes. Retrieved from: <https://www.aap.org/en-us/advocacy-and-policy/state-advocacy/documents/e-cigarettes.pdf>