



PREVENTION ALLIANCE
of **TENNESSEE**
A STATE OF PREVENTION

Electronic Nicotine Delivery Systems & Smoke Free Laws

PAT's Current Views

Electronic Nicotine Delivery System use should be prohibited in smoke-free areas.

The Prevention Alliance of Tennessee (PAT) advocates for comprehensive smoke-free laws to protect the public from the harmful effects of secondhand exposure and to create communities that support tobacco-free living. Electronic Nicotine Delivery Systems, or ENDS, including supposed non-nicotine e-cigarettes, should also be prohibited in all workplaces, restaurants, and bars to protect against secondhand exposure to nicotine and other potentially harmful chemicals. This will also ensure the enforcement of existing smoke-free laws are not compromised and that the public health benefits of smoke-free laws are not undermined.

To further augment the policies in place to protect Tennesseans from secondhand smoke or vapor produced by any nicotine-delivery product, the Prevention Alliance of Tennessee recommends the addition of “vapor products” to the definition of the Non-Smoker’s Protection Act to protect children and non-smokers from nicotine and other pollutants.

ENDS aerosol can contain nicotine and other potentially harmful chemicals.

Vapes, vaporizers, vape pens, hookah pens, electronic cigarettes, and e-pipes are some of the many terms used to describe electronic nicotine delivery systems (ENDS). ENDS may be manufactured to look like conventional cigarettes, cigars, or pipes. Some resemble pens or other everyday items. Larger devices, such as tank systems or mods, bear little or no resemblance to cigarettes.¹ These products offer appealing flavors, intriguing designs, and often, a means by which nicotine users can circumvent smoke-free policies.



Although they have been touted as “safer” alternatives to smoking, or even a way to quit smoking cigarettes, the nicotine solutions and vapors produced by them have been shown to contain potentially harmful chemicals and carcinogens that may pose a threat to those inhaling them secondhand. The long-term health effects to users and bystanders are still unknown.

These products use an “e-liquid” that may contain nicotine. The liquid nicotine solution does contain cancer-causing chemicals such as formaldehyde, propylene glycol, acetaldehyde, acrolein, and tobacco-specific nitrosamines. Currently there is inadequate scientific information about the health effects caused by the chemical suspension containing the nicotine. A 2009 study done by the FDA found cancer-causing substances in several of the e-cigarette samples tested.² Additionally, Food and Drug Administration (FDA) tests found nicotine in some e-cigarettes that claimed to contain no nicotine.

¹ U.S. Food and Drug Administration. Vaporizers, E-Cigarettes, and other Electronic Nicotine Delivery Systems (ENDS). December 20, 2017. Available online at <https://www.fda.gov/TobaccoProducts/Labeling/ProductsIngredientsComponents/ucm456610.htm#references>

² U.S. Food and Drug Administration. Summary of Results: Laboratory Analysis of Electronic Cigarettes Conducted by FDA. July 22, 2009. Available online at <http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm173146.htm>.

The potential for poisoning also exists; refill bottles for typical ENDS products can contain up to 72 milligrams of nicotine (the fatal dose is 10 milligrams for children, 30-60 milligrams for adults). When smoking a regular cigarette from the U.S. market, the average smoker takes in 1 to 2 milligrams of nicotine per cigarette—in stark contrast to the potential exposure from an ENDS product. A recent study from the CDC looked at calls to Poison Centers for exposures to electronic cigarettes and regular combustible cigarettes (September 2010–February 2014) and found 2,405 e-cigarette exposure calls from across the United States.³

E-cigarette use is on the rise and requires federal, state, and local action.

- More than 2 million middle and high school students were current users of e-cigarettes in 2016.⁴
- E-cigarette use rose from 1.5% to 16.0% among high school students and from 0.6% to 5.3% among middle school students from 2011 to 2015.⁵

Since the introduction of e-cigarettes to the U.S. in 2007, the marketing and use of these products have increased dramatically. Recent scientific research has shown some negative health effects related to secondhand exposure to e-cigarette aerosol, which has caused a growing number of state and local governments to prohibit their use in various public places and places of employment — often under existing or new smoke-free laws.⁶

While the primary goal of policies that restrict the use of e-cigarettes in certain areas is to minimize the unknown health risks to the user or to bystanders, these laws also serve another important legislative goal: to support enforcement of existing smoke-free laws. Users of e-cigarettes often appear to be smoking combustible cigarettes, which causes confusion for those in charge of enforcing a smoke-free law. Omitting e-cigarettes from the restrictions imposed by smoke-free laws could lead smokers of conventional tobacco products to assume that smoking is permitted. Moreover, many public health professionals are concerned that permitting e-cigarettes to be used in traditionally smoke-free areas renormalizes “smoking-like behavior,” which may result in higher youth initiation rates and a slower decline in adult cessation rates.⁷

PAT Supports

- Strengthening State and Local Tobacco Control Measures: Many states and localities are moving forward and enacting regulations on the sale and use of e-cigarettes. E-cigarettes should be included in state and local tobacco control laws.
- Adding “vapor products” to the definition of the Non-Smokers Protection Act

Finally, in the absence of FDA guidance and sufficient research evidence establishing e-cigarettes as an effective method to help smokers quit, PAT does not recommend e-cigarettes for smoking cessation. Instead, PAT recommends use of FDA-approved smoking cessation medications (i.e. nicotine replacements – gum, patch, lozenge, inhaler, nasal spray - or bupropion or varenicline).

³ Notes from the Field: Calls to Poison Centers for Exposures to Electronic Cigarettes — United States, September 2010–February 2014. (2014, April 04). Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6313a4.htm#Fig>

⁴ Centers for Disease Control and Prevention (CDC). Tobacco use among middle and high school students – United States, 2011-2016. *Morbidity and Mortality Weekly Report*. 2017; 66(23):597-603.

⁵ Centers for Disease Control and Prevention (CDC). Tobacco use among middle and high school students – United States, 2011-2016. *Morbidity and Mortality Weekly Report*. 2017; 66(23):597-603.

⁶ Rachel Grana et al., *Background Paper on E-ciga- rettes*, Center for Tobacco Control Research and Education, University of California, San Francisco and WHO Collab- orating Center on Tobacco Control (Dec. 2013), http://arizonansconcernedaboutsmoking.com/201312e-cig_report.pdf. See also American Nonsmokers' Rights Foundation, *U.S. State and Local Laws Regulating Use of Electronic Cigarettes* (Oct. 1, 2016), <http://www.no-smoke.org/pdf/ecigslaws.pdf>.

⁷ Matt Richtel, *The E-Cigarette Industry, Waiting to Ex- hale*, N.Y. Times, Oct. 26, 2013, <http://www.nytimes.com/2013/10/27/business/the-e-cigarette-industry-wait- ing-to-exhale.html>