

# UVM ScholarWorks

## E-Cigarettes: What Primary Care Providers Need to Know

|               |   |
|---------------|---|
| Item Type     | Presentation;Presentation   |
| Authors       | Albert, Jennifer S  |
| Download date | 2026-06-16 09:59:25   |
| Item License  | <a href="http://creativecommons.org/licenses/by/4.0/">http://creativecommons.org/licenses/by/4.0/</a> |
| Link to Item  | <a href="https://hdl.handle.net/20.500.14849/1889">https://hdl.handle.net/20.500.14849/1889</a>       |



## E-Cigarettes: What Primary Care Providers Need to Know

E-cigarettes are gaining in popularity, and many people believe that they can aid in smoking cessation. This opinion, however, is in conflict with the Vermont Department of Health, American College of Physicians, American Academy of Family Physicians, and many other reputable organizations. The US Preventative Services Task force recommends that due to the unregulated nature of e-cigarettes and insufficient evidence of efficacy, patients should be directed towards other smoking cessation interventions with established efficacy and safety.

Additionally, e-cigarette use has boomed among youth, exposing them to nicotine addiction and an increased risk of conventional cigarette addiction. When discussing substance use with teenagers, it is important to ask about e-cigarettes and provide education about them.

### E-cigarette research overview:

- Nicotine levels advertised on e-cigarette packaging have been found to be inconsistent with levels detected via chemical analysis. Additionally, cartridges labeled “nicotine-free” have been found to contain nicotine.<sup>1</sup>
- E-cigarettes contain propylene glycol and glycerin which decompose to form the carcinogens formaldehyde and acetaldehyde.<sup>2</sup>
- The number of calls to poison control centers due to e-cigarettes has increased from 2010 to 2014, and the most common adverse health effects were vomiting, nausea and eye irritation.<sup>3</sup>
- There is conflicting evidence on whether or not e-cigarettes can aid smoking cessation, while multiple evidence-based approaches already exist. Pharmacotherapy (nicotine replacement therapy, varenicline and bupropion) and behavioral therapy are each individually shown to help people quit smoking. In a review of 53 studies, combined pharmacotherapy and behavioral interventions provide increased success in cessation.<sup>4</sup>
- US insurance companies are required to cover behavioral counseling and FDA approved pharmacologic therapy for smoking cessation. This coverage can make these methods much more cost effective than e-cigarettes. According to blu e-cigarettes™, the annual cost of their e-cigarettes for someone with a pack a day habit is \$730, and \$1,825 for disposables. The co-payment for nicotine replacement, varenicline or bupropion under Vermont Medicaid is \$1-3.

### E-cigarettes and teens:

- Across the country, youth e-cigarette use increased nine-fold from 2011-2014, from 1.5% to 13.4% according to the CDC.<sup>5</sup>
- In 2015, 30% of Vermont high school students reported trying e-cigarettes.<sup>6</sup>
- E-cigarette use is associated with an increased risk of conventional cigarette use among youth. It does not discourage conventional cigarette use among US teens.<sup>7</sup>

Questions? Contact Jennifer Albert at [jsalbert@med.uvm.edu](mailto:jsalbert@med.uvm.edu).

For information about Screening, Brief Intervention, and Referral to Treatment (SBIRT), please contact Ginger Cloud, MS, LCMHC, LADC at (802) 225-5685.

1. Cheng, T. (2014). Chemical evaluation of electronic cigarettes. *Tobacco Control*. 23 Suppl 2:ii11-7.
2. Kosmider, L., Sobczak, A., Fik, M., Knysak, J., Zaciera, M., Kurek, J., Goniewicz, M.L. (2014). Carbonyl compounds in electronic cigarette vapors: effects of nicotine solvent and battery output voltage. *Nicotine and Tobacco Research*, 16(10):1319-26.
3. Chatham-Stephens, K., Law, R., Taylor, E., Melstrom, P., Bunnell, R., Wang, B., Apelberg, B., Schier, JG. (2014). Notes from the field: calls to poison centers for exposures to electronic cigarettes. *CDC: Morbidity and Mortality Weekly Report*, 63(13):292.
4. Stead, L.F., Koilpillai, P., Fanshawe, T.R., Lancaster, T. (2016). Combined pharmacotherapy and behavioural interventions for smoking cessation. *Cochrane Database of Systemic Reviews*, 3:CD008286.
5. Arrazola, R., Neff, L., Kennedy, S., Holder-Hayes, E., Jones, C. (2015). Tobacco use among middle and high school students –United States, 2011-2014. *CDC: Morbidity and Mortality Weekly Report* 64(14):381-385.
6. Vermont Department of Health. (2015). The 2015 Vermont youth risk behavior survey: High school. Page 48.
7. Niaura, R., Glynn, T., Abrams, D. (2014). Youth experimentation with e-cigarettes: Another interpretation of the data. *JAMA*. 312(6):641-64.