

TOP 10

REASONS TO INCLUDE E-CIGARETTES IN YOUR TOBACCO-FREE (TF) CAMPUS POLICY

- E-cigarettes pollute the air.**¹⁻³
 - E-cigarettes give off tiny particles that can lodge in the lungs and cause disease.³
- E-cigs give off more than just water vapor, including:**
 - Propylene glycol (lung and eye irritant)^{1,2}
 - Nicotine (addictive and harmful to unborn babies)^{1,2}
 - Formaldehyde and β -nicotyrine (cause cancer)^{1,2}
 - Metal & silicate particles (toxic to human cells)⁴
- E-cigs can undermine TF campus policies by making enforcement confusing.**⁵
 - E-cigarette aerosol creates a dense mix of vapor and fine particles that looks like tobacco smoke. If exempt from TF policies, the 'smoky look' creates confusion with enforcement.
- No current regulations on the manufacture and sale = no consumer protection.**⁶
 - No way to know what users are breathing in or putting into the air for others to breathe.
 - No protection from dangerous design flaws.
- High nicotine levels in e-cig fluid can be deadly.**
 - High levels of nicotine can be absorbed through spills on the skin or children swallowing the liquid.⁶
 - States report increases in calls to poison control centers from e-cigarettes.⁷
- E-cig labels may not be accurate.**⁸
 - E-cigarettes labeled as zero nicotine may still contain nicotine.
 - Amounts of nicotine may be more or less than what is on the label.
- E-smokers are no more likely to quit than regular smokers.**⁹
 - Many e-cigarette users continue to smoke regular cigarettes as well.
 - E-cigarettes are not approved by the FDA to help smokers quit.
- E-cigs appeal to youth, even those who don't smoke.**¹⁰
 - Glamorous marketing and sweet, candy-like flavorings (bubble gum) are appealing.
 - 1.78M youth tried e-cigarettes in 2012 (160,000 of them *non-smokers*).¹⁰
 - Youth who use e-cigarettes are more likely to smoke regular cigarettes.¹¹
- Early research shows lung effects similar to smoking:**
 - Five minutes of e-cigarette use has lung effects similar to tobacco smoke.¹²
 - Airways become inflamed after using e-cigarettes containing nicotine.³
- E-cigs may pollute the air less than cigarettes, but they still pollute the air.**¹⁻³
 - Individuals are exposed to secondhand aerosol from e-cigarettes.

References

1. Laugesen M. Safety Report on the Ruyan® E-cigarette Cartridge and Inhaled Aerosol. Christchurch: Health New Zealand Ltd.; October 30, 2008.
2. Westenberger BJ. Evaluation of e-cigarettes: Food and Drug Administration; May 4 2009.
3. Schober W, Szendrei K, Matzen W, et al. Use of electronic cigarettes (e-cigarettes) impairs indoor air quality and increases FeNO levels of e-cigarette consumers. *Int. J. Hyg. Environ. Health*.2013. <http://dx.doi.org/10.1016/j.ijheh.2013.11.003>
4. Williams M, Villarreal A, Bozhilov K, Lin S, & Talbot P. Metal and silicate particles including nanoparticles are present in electronic cigarette cartomizer fluid and aerosol. *PLoS one*, 2013;8, e57987.
5. World Health Organization. Regulatory scope. Tobacco product regulation. Electronic nicotine delivery systems. *Drug Information*. 2010;24(1):30-32.
6. Trtchounian A, Talbot P. Electronic nicotine delivery systems: is there a need for regulation? *Tob Control*. 2011;20(1):47-52.
7. Roetker, M. E-cigarettes cause alarming increase in calls to poison control center. *Global Newswire*. December 9, 2013. Retrieved from <http://globenewswire.com/news-release/2013/12/09/595574/10060841/en/E-cigarettes-cause-alarming-increase-in-calls-to-poison-control-center.html>.
8. Flouris AD, Oikonomou DN. Electronic cigarettes: miracle or menace? *BMJ*. 2010;340:c311.
9. Adkison SE, O'Connor RJ, Bansal-Travers M, Hyland A, Borland R, Yong HH, Cummings KM, McNeill A, Thrasher JF, Hammond D, & Fong GT. Electronic nicotine delivery systems: International Tobacco Control Four-Country Survey. *Am J PrevMed* 2013;44(3):207-15.
10. Notes from the field: electronic cigarette use among middle and high school students - United States, 2011-2012. *MMWR Morb Mortal Wkly Rep*. Sep 6 2013;62(35):729-730.
11. Dutra LM, Glantz SA. Electronic cigarettes and conventional cigarette use among US Adolescents. *JAMA Pediatr*. doi:10.1001/jamapediatrics.2013.5488. Published online March 6, 2014. Available at <http://archpedi.jamanetwork.com/article.aspx?articleid=1840772>.
12. Vardavas CI, Anagnostopoulos N, Kougias M, Evangelopoulou V, Connolly GN, Behrakis PK. Acute pulmonary effects of using an e-cigarette: impact on respiratory flow resistance, impedance and exhaled nitric oxide. *Chest*. 2011;141(6):1400-1406.

