Knox County Health Department
Every Person. A Healthy Person

Electronic Cigarettes

SPRING 2015

QUICK FACTS

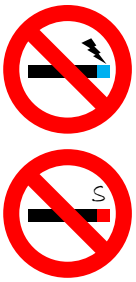
- **E-cigarettes contain nicotine, which is a highly addictive substance**
- **E-cigarettes are not regulated by the FDA**
- **E-liquid, with or without nicotine can damage lung tissue when inhaled**
- **Research does not support that e-cigs help smokers quit smoking**
- **Liquid nicotine is toxic to children**

INSIDE THIS ISSUE:

Smoke-Free and Vape-Free Schools

Creating a smoke-free, clean air policy for schools can have a major impact on limiting exposure to dangerous toxins. Adding electronic cigarettes to this policy helps to protect our children, while also educating parents that these methods are also not safe. E-cigarettes pose a public health risk to those who use them, and the environment in which they use them. These products also pose risks for accidental exposure in children.[1]

E-cigarettes were introduced in 2006, and their sales have exploded internationally. It was estimated to be a $2.7 billion dollar industry in 2014.[2] One in five adult smokers have used an electronic cigarette. In the U.S., 2.5 million adults use e-cigs regularly.[3] Over 250 brands of electronic cigarettes now exist. Thousands of e-liquids or "juice" exist, with varying levels of nicotine content, additives and flavors.



No Vaping—No Smoking

As a school, the opportunity exists to educate and impact the health of children, staff, parents, and the public. Adopting a tobacco free workplace policy, including electronic cigarettes, can make a difference.

Policy Development

When developing a policy, it is important to establish a team or task force, and research the problem. Keep the written policy simple, and communicate it well. Announce the start date and post signage as appropriate. Monitor the process and policy implementation, adjusting the policy as needed.

Gaining Popularity Among Youth

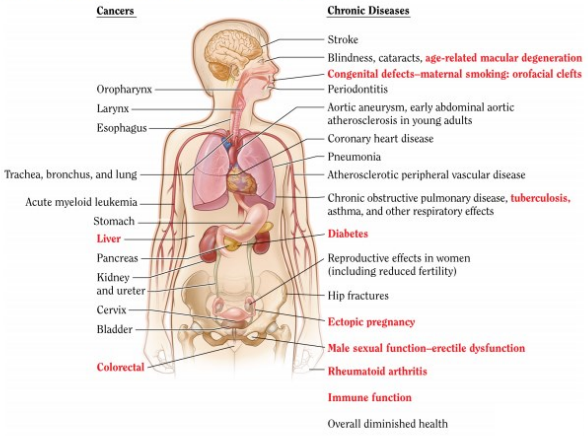
In 2013, more than a quarter million middle and high school students tried e-cigarettes, which is three times as many as in 2011. Those teens had never smoked regular cigarettes.[4] Nicotine addiction at a young age can have detrimental side effects.[4] whether from traditional cigarettes or e-cigarettes. E-cig companies are engaging youth in marketing tactics that are similar to the vintage ads for cigarettes, used in the 1950s. Flavored e-liquids in candy and fruity varieties appeal to young crowds. E-cigarettes come in many forms, some made to look like a traditional tobacco cigarette, some designed to look like a pen. They vary in size and shape. They are often marketed as the "smarter" or "healthier" alternative to smoking—which is not supported by scientific research.[5]

50 years Ago: The Surgeon General's Report on Smoking

In 2014, the landmark Surgeon General's Report on Smoking celebrated 50 years. Much of what we know today about the long term consequences of smoking took many years to discover. Electronic cigarettes have been on the market less than 10 years, and growing rapidly. Longitudinal studies are simply not available yet.

Electronic cigarettes have the capacity to unravel the vast public health efforts to curb tobacco use in the United States.[7]

This graphic demonstrates the health consequences casually linked to smoking. Items in red are diseases newly linked to smoking in the 2014 report.[8]



Source: US Dept Health and Human Services 2012

Health Effects of Vaping

Scientific research on electronic cigarettes shows the potential for negative health effects from the chemicals present, the vaping process and the habits formed from nicotine addiction.[9]

Second hand "vapor" or aerosol created from using these devices can be inhaled by those in close proximity. This aerosol can contain nicotine and by-products, such as formaldehyde containing compounds and other known carcinogens.[9] Third hand vapor, or the residue left on surfaces, can also contain harmful substances, include toxic nicotine.

Studies have shown that non-nicotine flavors, such as cinnamon, can cause lung inflammation too.[9]

Electronic cigarettes are not an approved device for smoking cessation. They may pose additional risk if users continue to smoke tobacco. They could encourage prolonged use of both products; unregulated advertising may also sensationalize the act of smoking.

Ads depict e-cigs as the "smarter" or "healthier" choice—but the truth is, addiction is not.

What messages are electronic cigarette advertisers trying to send?

Contact Us

Tobacco Use Prevention and Control
Community Health
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Visit us on the web at
www.knoxcounty.org/health

For additional resources on Tobacco Free Workplace:
http://www.knoxcounty.org/health/tobacco_use.php

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References: 1. CDC MMWR April 3, 2014: New CDC study finds dramatic increase in e-cigarette-related calls to poison centers; 2. CNN: E-cigarettes: Helping smokers quit, or fueling a new addiction? March 23, 2015; 3. CDC, Key Findings: Trends in Awareness and Use of Electronic Cigarettes among U.S. Adults, 2010-2013; 4. CDC MMWR September 6, 2013: Notes from the Field: Electronic Cigarette Use Among Middle and High School Students — United States, 2011–2012; 6. Grana, Rachel . E-Cigarettes Not Associated With More Smokers Quitting, Reduced Consumption. JAMA Internal Med. March 24, 2014. 7. California Department of Public Health, California Tobacco Control Program, State Health Officer's Report on E-Cigarettes: A Community Health Threat, Sacramento, CA 2015 8. U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. 9. Lerner CA, Sundar IK, Yao H, Gerloff J, Ossip DJ, et al. (2015) Vapors Produced by Electronic Cigarettes and E-Juices with Flavorings Induce Toxicity, Oxidative Stress, and Inflammatory Response in Lung Epithelial Cells and in Mouse Lung. **Additional Resources: Policy Flow Chart & Model Ordinance http://changelabsolutions.org/publications/e-cig-ord**