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E-Cigarettes/Vaping: Know the Facts

Electronic cigarettes are devices that operate by heating a liquid solution to a high enough temperature that an aerosol is produced that can be inhaled by the user. The devices do not create a vapor as suggested by the popular term “vaping,” but an aerosol that can contain tiny chemical particles from the liquid solution and the device itself.



Are e-cigarettes safe?

The Centers for Disease Control (CDC) has stated there is no safe tobacco product, which includes e-cigarettes. E-cigarettes potentially could benefit current adult smokers who are not pregnant and completely substitute e-cigarettes for regular cigarettes; however, adults who currently do not use any tobacco product should not start using e-cigarettes. Nicotine is highly addictive and has known adverse health effects, especially for adolescents, young adults, and women who are pregnant:

- Nicotine is a health danger for women who are pregnant and their developing babies; nicotine is toxic to developing fetuses.
- Nicotine can harm adolescent brain development, which continues into the early to mid-twenties.

E-cigarette, or vaping, product use associated lung injury (EVALI)

The CDC and FDA have issued warnings regarding the use of e-cigarettes and vaping products due to a national outbreak of lung injury. As of October 22, 2019, 1,604 cases of lung injury associated with e-cigarettes and vaping (EVALI) have been reported, and 34 deaths have been confirmed in 24 states.

THC has been present in most of the samples tested by the FDA, but the cause or causes of lung injury have not been identified. (THC, or tetrahydrocannabinol, is the chemical responsible for most of marijuana's psychological effects.) In light of this outbreak, the CDC has advised:

- Do not use any e-cigarette or vaping products that contain THC.
- Do not buy any e-cigarette or vaping products off the street.
- Do not modify or add any substances to e-cigarette, or vaping, products that are not intended by the manufacturer, including products purchased through retail establishments.
- Consider refraining from use of all e-cigarette, or vaping, products to assure you are not at risk for lung injury.

Youth use of e-cigarettes

According to the CDC, youth in the US are more likely to use e-cigarettes than adults. In 2018, more than 3.6 million middle and high school students used e-cigarettes in the past 30 days — 4.9% of all middle school students and 20.8% of all high school students.

People who care for adolescents and young adults can take action by doing the following:

- Learn about the different shapes and types of e-cigarettes, as well as all associated risks.
- Talk with your children about e-cigarette use. Ask open-ended questions and refrain from using judgmental or accusatory language.
- Give straight forward facts and appeal to their good judgment.

For more information, check out the American Lung Associations' tip sheet:

<https://www.lung.org/assets/documents/stop-smoking/how-to-talk-to-your-kids-about-vaping.pdf>

Respiratory Health & Safety in the Workplace



According to **Occupational Safety and Health Administration** (OSHA) statistics, respiratory protection was third among OSHA's Top 10 Most Cited Violations of 2018. The importance of wearing a respirator is to protect workers against dangerous contaminants such as harmful dusts, fogs, smoke, mists, gases, vapors, and sprays, when engineered controls aren't sufficient to remove the harmful particulates. When employees are exposed to these types of hazards, they are at increased risk for cancer, lung impairment, or even death.

So, what can an employer do to protect their employees when engineered controls aren't sufficient in the workplace? Implement a respiratory protection program. According to the OSHA Respiratory Protection Standard, 1910.134 (c)(1), any workplace where respirators are necessary to protect the health of the employee — or whenever respirators are required by the employer — the employer shall establish and implement a written respiratory protection program with worksite-specific procedures.

Why Quit Smoking Now?

According to the U.S. Food and Drug Administration (FDA), tobacco use is the single largest preventable cause of disease and death in the United States. Fortunately, it's never too late to quit smoking. Quitting has these immediate **health benefits**:

Time After Last Cigarette	Physical Response
20 minutes	Blood pressure and pulse rates return to normal.
8 hours	Levels of carbon monoxide and oxygen in the blood return to normal
24 hours	Chance of a heart attack begins to decrease.
48 hours	Nerve endings start to regroup. Ability to taste and smell increases
72 hours	Bronchial tubes relax and the lungs can fill with more air.
2 weeks - 3 months	Circulation improves and lung function increases by up to 30%.
1 - 9 months	Rates of coughing, sinus infection, fatigue, and shortness of breath decrease. Cilia in the airways re-grow improving the ability to clear mucus and clean lungs. This reduces the chance of infection and increases energy level.
Long-Term Effects	After a year, risk of dying from heart attack or stroke is reduced by up to 50%.