

## FREQUENTLY ASKED QUESTIONS ABOUT E-CIGARETTES

### What is an e-cigarette/vapor product?

- A battery-powered device that heats a liquid solution to produce a vapor for inhalation.
- Some look similar to cigarettes and even have a tip that lights up when the user inhales. Other vapor products look less like cigarettes but serve the same purpose. Some are refillable and rechargeable, while others are disposable.
- The liquid solution comes in various flavors and nicotine levels.
- Use of an e-cigarette is often referred to as “vaping” rather than “smoking.”

### Is their popularity increasing?

- Sales of e-cigarettes have greatly increased in the United States since 2010.
- A large portion of the population is aware of e-cigarettes, including most adolescents and young adults.
- Awareness of e-cigarettes is particularly high among smokers.

### Are they safe? Are they regulated?

- E-cigarettes do not contain traditional tobacco, but they do contain nicotine, which is a tobacco-derived product. As a result, a federal court has determined they can be regulated as a tobacco product, and the FDA has announced its intent to regulate e-cigarettes.
- Because the products are not currently regulated and many are produced outside the United States, there is no oversight of a manufacturer’s claims or an independent reseller’s claims regarding ingredients, nicotine content or safety.

## MORE INFORMATION ABOUT E-CIGARETTES

### 1) Minors should not have access to e-cigarettes/vapor products.

- The nicotine present in e-cigarettes can negatively affect the developing brain.<sup>i</sup> E-cigarettes/vapor products should therefore not be made available to minors.
- E-cigarette/vapor product use is increasing among middle and high school students, while the use of combustible cigarettes among youth is decreasing.
  - Between 2009 and 2011, there was an 8.1% decrease in combustible cigarette use among high school students and a 17.4% decrease in combustible cigarette use among middle school students.<sup>ii,iii</sup>
  - Between 2011 and 2012, there was an 86.7% increase in e-cigarette use among high school students and an 83.3% increase in e-cigarette use among middle school students.<sup>iv</sup>

### 2) There are safer and more effective ways to quit smoking combustible cigarettes.

- Cigarettes and other combustible tobacco products are so harmful that quitting cigarettes completely is the only way to achieve health benefits. Vapers who use e-cigarettes while continuing to use combustible cigarettes are not improving their health.
- E-cigarettes/vapor products contain cancer-causing chemicals (carcinogens) and nicotine.<sup>v</sup>
  - Nicotine is as addictive as heroin and cocaine<sup>vi</sup> and is toxic at certain doses.<sup>vii</sup>
  - Nicotine affects the nervous system and heart and can be absorbed into the body through inhalation, ingestion and skin contact.<sup>viii</sup>
  - Refill cartridges for e-cigarettes with high nicotine content are possibly life-threatening, particularly for children.<sup>ix</sup>
- Because e-cigarettes/vapor products are not regulated, their safety may be questioned. Among e-cigarette/vapor products, the concentration of chemical contaminants and nicotine has been shown to vary greatly. This means these unregulated products may provide uncontrolled doses of harmful contaminants.<sup>x,xi</sup>
- Some survey data state that people believe e-cigarettes are less harmful than FDA-approved nicotine replacement products such as patches, gum, or lozenges, which is untrue. FDA-approved products provide controlled doses of nicotine and have been tested and regulated as cessation products.<sup>xii</sup>

- E-cigarette and vapor products have not been adequately tested nor approved as tobacco cessation devices. The safest alternative to the use of traditional tobacco products is complete cessation.
- While some people claim to have quit combustible cigarettes using e-cigarettes/vapor products, early studies indicate that quit rates are not significantly greater with vapor products than nicotine replacement therapy products that have been licensed, tested and approved for this purpose.<sup>xiii</sup> Completion of the Tobacco Helpline’s multi-unit call program when combined with FDA-approved nicotine replacement therapy has been shown to result in a significantly higher quit rate.<sup>xiv</sup>

### 3) E-cigarettes/vapor products should not be considered “clean” indoors.

- According to one study, within three minutes, e-cigarettes emit particulate matter (PM<sub>2.5</sub>) in indoor air that exceeds the WHO air quality guideline value for short term exposure.<sup>xv</sup>
- The vapor produced from an e-cigarette or vaping device is *not* water vapor. E-cigarettes/vapor products emit elevated levels of chemicals, including propylene glycol, glycerine, tobacco specific nitrosamines and other tobacco-related contaminants.<sup>xvi</sup>
  - Propylene glycol may cause respiratory irritations and possibly increase the risk for asthma.<sup>xvii</sup>
  - Glycerine may cause lipoid pneumonia on inhalation.<sup>xviii</sup>
- In addition, certain carcinogenic (cancer-causing) substances and nicotine are also present in the vapor produced by e-cigarettes at some level.<sup>xix</sup>
- E-cigarettes and vapor products should not be used indoor or in cars, or around children. Secondhand vapor carries toxins with it that impact non-smokers/non-vapers. Studies suggest bystanders get just as much nicotine exposure from secondhand vapor as they do from secondhand smoke.<sup>xx</sup>
- MRI images indicate that there are changes in the brain after one hour of moderate secondhand smoke exposure to cigarettes, most likely due to nicotine exposure.<sup>xxi</sup> Nicotine and other cigarette contaminants are released in the vapor of e-cigarettes exposing bystanders to harmful chemicals at some level. Indoor spaces should be free of these contaminants to minimize negative health consequences.

**We need much more research on the impact of vaping on cancer, heart disease, long-term health consequences and youth initiation to tobacco products.**

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