



- E-cigarettes can contain the addictive substance nicotine. Because of this, many individuals may become hooked on e-cigarettes and expose themselves to potential health risks.
- Research is ongoing to discover the long-term risks of e-cigarettes. However, it is known that some of the chemicals inhaled can cause damage to the body.
- The Food and Drug Administration (FDA) has not approved the use of e-cigarettes for smoking cessation. However, other products including nicotine replacement therapies and prescription medications are FDA approved to help individuals quit smoking.

Samantha Schulte, PharmD, June 2018

The first modern e-cigarettes were made in China in 2004 and within a few years could be bought in the United States.¹ Since then, e-cigarettes have become more popular because many believe they are a safer choice than smoking. However, here are the top 10 facts that might surprise you about e-cigarettes.

#1-E-cigarettes are called by many names: e-cigs, hookah pens, vape pipes, vaporizers, mods, vapes, smokeless cigarettes, electronic nicotine delivery systems (ENDS), and others²

Having many names may make it confusing when buying these products. All the products listed above involve breathing in vaporized liquids that could be harmful. These products may even look like regular tobacco products such as cigars, cigarettes, and pipes.

#2-Compared to a regular cigarette, e-cigarettes are made of many different parts

An e-cigarette consists of a power source, an atomizer, a cartridge, and a mouthpiece. The power source is a battery. The battery supplies power to the atomizer, which heats the liquid that is in the cartridge and turns it into a gas. The liquid found in the cartridge contains many substances such as flavors, dyes, chemicals, and metals that are inhaled through the mouthpiece.²

#3-Tobacco-free does not mean nicotine-free

Companies may say e-cigarettes are tobacco-free to give the impression that they are better than regular cigarettes and do not have the same risks. However, many e-cigarette cartridges contain nicotine which comes from tobacco plants.³

#4-Nicotine is the addictive chemical that can be found in both e-cigarettes and regular cigarettes

When nicotine is inhaled, it triggers the brain's reward pathway, which leads to individuals feeling good after using the product. Over time, individuals can become addicted to this feeling.³

#5-Cancer-causing substances have been found in e-cigarettes

In addition to nicotine, many other substances have been found in e-cigarettes and their flavoring liquids. Some of these substances include chemicals and pieces of metals like nickel. These chemicals and metals can cause cancer or other serious lung diseases.³

#6-Secondhand smoke is still a problem with e-cigarettes

E-cigarettes give off chemicals into the air that can be cancer causing. These chemicals can be dangerous to those breathing near an e-cigarette user.³

#7-E-cigarettes are not Food and Drug Administration (FDA) approved to help people quit smoking

Some claim that switching from regular cigarettes to e-cigarettes is a way to help quit smoking. Proof of this is limited. There are medications that have been approved by the FDA to help you quit smoking.^{2,4} Talk to a doctor or pharmacist to learn about medicines used to help quit smoking.

#8- Using e-cigarettes is dangerous to developing bodies and minds

Young people and growing fetuses can be hurt by nicotine. Because young people's brains are not fully developed until around age 25, nicotine can prevent proper development. Also, growing fetuses may be negatively impacted by their mother's use of e-cigarettes because nicotine can cause severe health complications, including the potential for death.⁵ Unfortunately, more high schoolers are using e-cigarettes than in years past. This increase may be because of the 'fun' flavors and designs of e-cigarettes. Using e-cigarettes at a young age may also increase the chance of young people switching to regular cigarettes or other harmful substances later in life.⁵⁻⁶

#9-E-cigarettes have exploded, causing injuries

Explosions have been reported while the device is in use, while the device is being charged, and even while the device is not being used. These explosions have resulted in severe injuries in some cases.⁷

#10-E-cigarettes are linked to cases of 'e-cigarette, or vaping, associated lung injury' or EVALI

Between March 2019 and February 2020, over 2,800 cases of EVALI related hospitalizations or deaths occurred in the United States. Symptoms include cough, shortness of breath, chest pain, and other flu-like symptoms. Vitamin E acetate, an additive in some tetrahydrocannabinol (THC) containing vaping products, is strongly linked to EVALI. It is recommended that people not use THC-containing vaping products, especially from informal sources like friends, family, or in-person or online dealers. People should not add vitamin E acetate, or any other chemicals, to their e-cigarette products.⁸



Go online to find more information about e-cigarettes and to view the references for this toolkit.

aapp.org/372856

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