Vaping and E-cigarettes
What are the risks?

► Learn about the risks of vaping and electronic cigarette use. Understand the current laws and the legal consequences in some states for vaping.

Some people believe that vaping and electronic cigarettes are a safe alternative to smoking traditional cigarettes. The Centers for Disease Control and Prevention (CDC) warns that these devices are not safe for youth or adults because they contain nicotine and other harmful chemicals.

Electronic Cigarettes

■ Electronic or e-cigarettes are battery-operated devices that include vapes, mods, Juuls, e-hookahs, and vape pens. These handheld devices work by heating a cartridge containing liquid nicotine and other chemicals into a vapor.

■ The amount of nicotine in e-cigarettes varies. Small amounts of liquid (e-liquid) can contain as much nicotine as an entire pack of regular cigarettes.

■ Most e-liquids come in several nicotine strengths: high, medium, low, and zero. But there is no standard for nicotine strength across labels, brands, or cartridges. People may choose a level of nicotine that is too strong for their body or not check the strength before smoking.

■ Several studies have found that products labeled nicotine-free still contained nicotine.

■ E-cigarettes are also used for dripping, which involves heating the e-liquid at high temperatures by dripping a couple of drops of e-liquid directly onto an atomizer’s coil and then immediately inhaling the vapor that is produced.

■ Dab pens are another form of e-cigarettes and can also be used specifically to vape marijuana. Dabs use a small, but high level of THC, the mind-altering compound in marijuana.

■ Once vaping devices are purchased, they often only require e-liquid refills and replacement batteries for multiple uses.

Safety Risks

■ Vaping increases health risks for children, pregnant women, and those with preexisting health conditions. These vulnerable populations are also at risk when they are consistently around others who vape.

■ Lithium batteries, which power the e-cigarette devices, carry a risk of fire and explosion. This information is currently not on product packaging.

□ In May 2018, a 38-year-old Florida man died from a head wound caused by shards of metal from his exploding vape pen. His was the first reported death in the United States attributed to a malfunctioning electronic cigarette battery.
From 2015 to 2017, U.S. hospital emergency rooms reported an estimated 2,035 e-cigarette explosion and burn injuries. These injuries were burns, with the majority of injuries occurring on the upper leg, hand, and fingers.

Fire and blast injuries affect not only the people who smoke them but also harm others and damage personal property.

- Children who are too young to smoke have been harmed by e-cigarettes and related products. Skin exposure and swallowing the e-liquid is far more likely to require an emergency room visit than eating or swallowing regular cigarettes, according to the National Center for Health Research.

Impacts on the Brain

A 2014 report from the U.S. Department of Health and Human Services found evidence that nicotine exposure in teens “may have lasting adverse consequences for brain development.”

- Using nicotine as a teen can harm the parts of the brain that control attention, learning, mood, and impulse control.

- Because the brain is still developing during the teen years, nicotine exposure might lead to changes in the central nervous system that could cause teens to form a dependence much faster on other drugs in the future.

- Recent studies have shown that early, repeated intake of nicotine is associated with cognitive decline and performance impairment.

- Following the intentional or accidental swallowing of e-liquid, people have reported seizures or convulsions as a side effect of nicotine toxicity.

- When teens try to quit, the lack of nicotine in the body causes anxiety, irritability, restlessness, difficulty concentrating, depressed mood, frustration, anger, increased hunger, and difficulty sleeping. These symptoms can cause issues at home and in school.

Impacts on the Heart

- Daily use of e-cigarettes nearly doubles the odds of a heart attack.

- While e-cigarettes deliver lower levels of carcinogens than conventional cigarettes, they expose users to high levels of ultrafine particles and other toxins that have been linked to increased cardiovascular and noncancer lung disease risks. This accounts for more than half of all smoking-related deaths.

Impacts on the Lungs

- The vapor produced by the chemicals in e-juice enters into the user’s lungs and leaves chemical residue behind, causing breathing problems.

- Many of the ingredients in e-cigarette vapors have long-term harmful effects on the lungs.

- Diacetyl, the flavoring chemical used in e-juice, is associated with the lung disease bronchiolitis obliterans, commonly called popcorn lung, and other severe respiratory diseases.

- Diacetyl (DA) and acetyl propionyl (AP) are often in sweet-flavored e-cigarette liquids and expose users to high levels of the chemicals.
Cancer Risks

■ E-cigarettes have gained popularity as a safer alternative to traditional cigarettes. Experts warn that vaping causes e-cigarette users to inhale dangerous quantities of cancer-causing chemicals.

■ Chemicals such as formaldehyde and particularly acrolein are associated with the type of DNA damage that puts people at risk for cancer and leukemia.

E-cigarette Accessibility

Truth Initiative surveyed a national sample of more than 1,000 12- to 17-year-olds in April 2018:

■ 74 percent of teens reported they obtained a Juul from a physical store or retail outlet.

■ 52 percent reported they acquired a Juul from a social source, such as a friend or family member.

■ 6 percent bought a Juul from the Internet. Minors are easily able to purchase e-cigarettes because Internet-based e-cigarette vendors do not use age-verification measures.

■ Some teens borrow vaping devices if they do not own a device or cannot purchase them because of age restrictions. Every state law is different regarding the purchase of e-cigarettes.

E-cigarette Laws

It is important to know the e-cigarette and vaping laws in Alabama and the bordering states. Here are the laws for Alabama, Georgia, Mississippi, Tennessee, and Florida.

2019 Alabama Laws

The legal purchase age is 19. E-cigarettes are banned on most university campuses.

Stringer-Drummond Vaping Act of 2019

■ Vape shops must have a tobacco permit.

■ Advertising vape and other alternative nicotine products as a means to stop smoking or a healthy alternative to smoking is prohibited.

■ The Alcoholic Beverage Control Board will regulate e-cigarettes and vape products.

■ In-store and online sales of alternative nicotine products and electronic nicotine delivery systems to minors are prohibited.

■ Arrests can be made for selling or giving anyone under the age of 19 e-cigarette products with up to 30 days in jail and a $100 to $300 fine.

■ Advertising such products near schools and/or opening vape shops within 1,000 feet of a school, childcare facility, church, youth center, public library, playground, or park is prohibited.

■ Retailers and manufacturers cannot advertise most flavors on billboards. Only menthol, mint, and tobacco flavors are allowed on billboards.

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2019 Georgia Laws

The legal purchase age is 18. The law defines e-cigarettes as “any noncombustible product containing nicotine that employs a heating element, power source, electronic circuit, or other electronic, chemical, or mechanical means, regardless of shape or size that can be used to produce vapor from nicotine in a solution or other form.”

- The law states, “It is not unlawful in Georgia for a minor to possess a vapor product (electronic cigarette, electronic cigar, electronic cigarillo, electronic pipe, or similar product or device), if it is provided by a parent or guardian and possession is within the parent’s or guardian’s home while he or she is present.”
- The use of e-cigarettes is banned on campuses of the University System of Georgia.
- Georgia has provisions to allow for community service in conjunction with, or instead of, fines or other punishment.

2019 Mississippi and Tennessee Laws

The legal purchase age is 18. Mississippi and Tennessee are the only two states with e-cigarette laws that do not include specific prohibitions on the possession or purchase of e-cigarettes by minors. While both states do have laws prohibiting the possession or purchase of tobacco products by a minor, they do not currently include e-cigarettes.

2019 Florida Laws

The legal purchase age is 18. Florida law defines e-cigarettes as “any product that employs an electronic, chemical, or mechanical means to produce vapor from a nicotine product, including, but not limited to, an electronic cigarette, electronic cigar, electronic cigarillo, electronic pipe, or other similar device or product, any replacement cartridge for such device, and any other container of nicotine in a solution or other form intended to be used with or within an electronic cigarette, electronic cigar, electronic cigarillo, electronic pipe, or other similar device or product.”

- Under Florida law, the possession of a nicotine product or nicotine dispensing device by a minor, or the misrepresentation of age or military service by a minor for purchasing such products, is a noncriminal offense.
- There is a range of penalties for repeated violations. Penalties for purchase violations can range from $50 for the first violation up to $400 for the fourth and subsequent violations.
- It allows for community service in combination with, or instead of, fines or other punishment.

If you or your child is currently addicted to e-cigarettes, Juuls, or any other device:

- Talk to your doctor.
- Consider nicotine replacement therapies, including patches, lozenges, gum, and other medications approved for the treatment of nicotine addiction, which may help with withdrawal symptoms.
- Get free counseling by calling:
  - The National Quitline at (800) QUIT NOW or text QUIT to 47848 to get smoke-free text messages
  - The National Cancer Institute at (877) 44U-QUIT

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