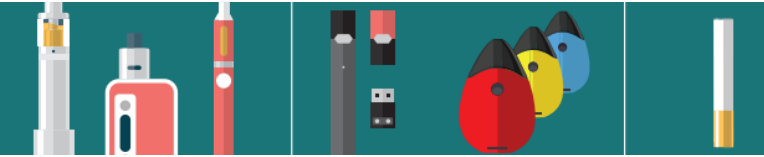


Electronic Smoking Devices and Vaping

Public Health Brief

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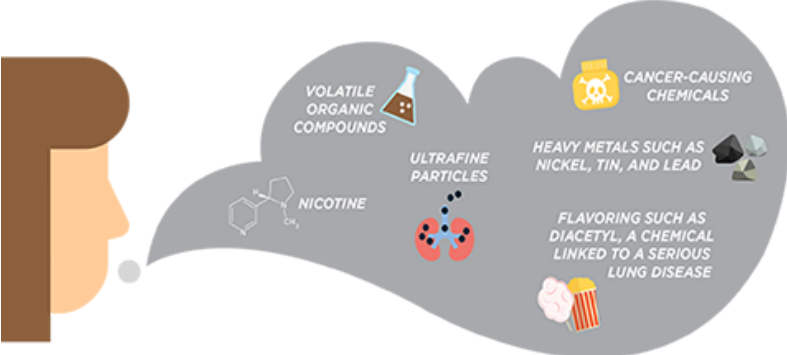
What are ESDs and Vaping?

Electronic Smoking Devices (ESDs) are also known as e-cigs, vapes, e-hookahs, vape pens, mods, JUUL, and tank systems. The aerosol from ESDs typically contains harmful chemicals such as nicotine, volatile organic compounds, cancer-causing chemicals, and heavy metals such as nickel, tin, and lead. In addition, ESDs include flavoring such as diacetyl, which has been linked to lung disease, as well as ultrafine particles that can be inhaled deep in the lungs. Some products have contained Cannabidiol (CBD), Tetrahydrocannabinol (THC), and Vitamin E as well.

ESDs produce the aerosol by heating a liquid that contains the chemicals mentioned. The act of inhaling and exhaling the aerosol is referred to as vaping. Some e-cigarettes can be used to deliver marijuana or other drugs. These products come in all shapes and sizes but commonly have a battery, a place to hold the liquid, and a part that heats the liquid. The most commonly used tobacco product among youth is e-cigarettes. On December 20th 2019, the President signed a federal law to raise the minimum age to buy all tobacco products, including ESDs, to 21. This should take into effect in early 2020.

Risks

- Most ESDs contain nicotine, which is highly **addictive** and can **harm brain development** in adolescents.
- Use of ESDs during adolescence can increase the risk of **addiction to other drugs in the future**.
- Even in small doses, ingredients found in ESDs can expose the user to **high levels of toxins**.
- ESDs can cause **Irreversible lung damage and lung diseases**.



% of Students Using Any Vaping Product within 30 Days Prior to Taking Survey*

	National (2019)	Harford County (2016)
8th graders	12.2%	8.2%
10th graders	25%	13.2%
12th graders	30.9%	19.1%

**Harford County data for 2019 are not available yet

What You Can Do

As a parent/caregiver: Talk with your child about the harmful effects of ESDs. Set a good example to them and connect them to resources.

As a user: Go Tobacco Free! Refer to the following resources for help:

- <https://teen.smokefree.gov/>
- Maryland Quitline: 1-800-QUIT-NOW

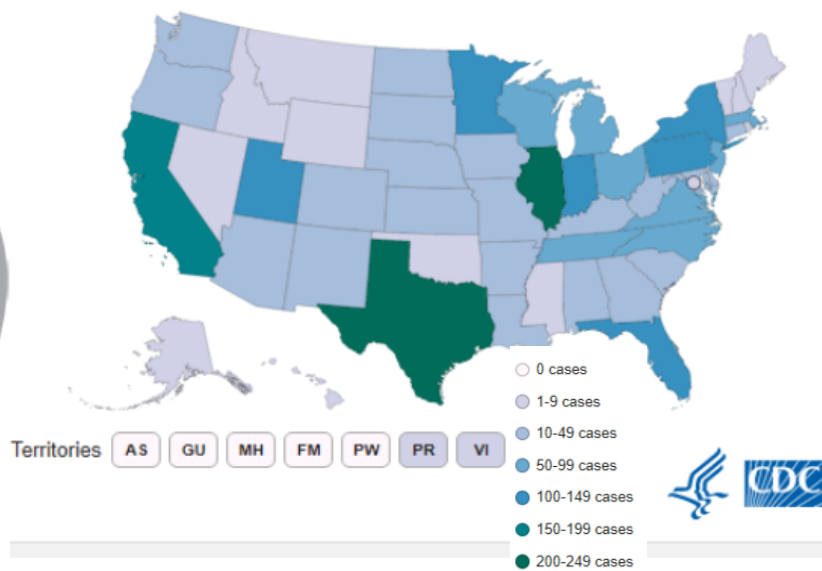
Talk to friends, family, healthcare provider, and counselor about getting help to quit smoking.

Spotlight: Outbreak of Lung Injury Associated with E-Cigarette Use*

As of December 17th, 2019, there have been **over 2,500 cases** of e-cigarette or vaping related lung injury cases in all 50 states, D.C. and 2 U.S territories as well as **at least 54 deaths** in 27 states and D.C. Respiratory symptoms found in patients include shortness of breath, pain with breathing and coughing, fever, nausea, vomiting, and diarrhea.

It is known that all reported cases had a history of ESD use. The investigation is still ongoing, however, the most recent findings suggest that the lung injury cases may be a result of e-cigarettes that contain Vitamin E Acetate, an additive in some THC-containing ESD's. THC has been found in most of the cases linked to lung illnesses. In addition, the most recent findings suggest the use of ESDs from informal sources such as friends, family, or online dealers are linked to most cases of the outbreak.

Number of Hospitalized Lung Injury Cases Reported to CDC*



Sources*:
 CDC. (2019). Outbreak of lung injury associated with the use of e-cigarette, or vaping, products. Retrieved from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html
 Maryland Department of Health. (2016). Youth risk behavior survey/youth tobacco survey (YRBS/YTS) 2016. Retrieved from <https://phpa.health.maryland.gov/ccdpc/Reports/Pages/YRBS2016.aspx#Harford>
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