WHAT WE KNOW SO FAR:

- As of October 29th, 2019, 49 states (all except Alaska), the District of Columbia, and 1 U.S territory have reported approximately 1,888 cases of e-cigarette or vaping product use associated lung injury (EVALI).
- 37 deaths has been confirmed in 24 states: Alabama, California (3), Connecticut, Delaware, Florida, Georgia (3), Illinois (2), Indiana (3), Kansas (2), Massachusetts, Michigan, Minnesota (3), Mississippi, Missouri, Montana, Nebraska, New Jersey, New York, Oregon (2), Pennsylvania, Tennessee (2) Texas, Utah, and Virginia.
- CDC has received complete sex and age data on 1,378 cases: 70% of cases are male; median age of cases is 24 years and ranges from 13-75 years. 80% of patients are under 35 years old, making this a teen and young adult problem.
- More cases are expected as CDC and FDA advisories are encouraging the medical community to report suspected cases.

WHAT DO ALL THESE CASES HAVE IN COMMON?

- All EVALI patients have reported a history of using e-cigarette, or vaping, products.
- The latest findings from the investigation into lung injuries associated with e-cigarette use, or vaping, suggest products containing THC play a major role in the outbreak.
- Among 867 patients with information on substances used in e-cigarette, or vaping, products in the 3 months prior to symptom onset; about 86% reported using THC-containing products; 34% reported exclusive use of THC-containing products; about 58% reported using nicotine-containing products; 13% reported exclusive use of nicotine-containing products.
- At this time, FDA and CDC have not identified the cause or causes of the lung injuries in these cases, and the only commonality among all cases is that patients report the use of e-cigarette, or vaping, products.
- No single product or substance has been linked to all lung injury cases. More information is needed to know whether a single product, substance, brand, or method of use is responsible for the outbreak.

CLINICAL FEATURES:

Among the EVALI cases, three major groups of symptoms have been reported with this outbreak:

1. **Chest symptoms** appear to occur over several days to several weeks and includes:
   - Cough
   - Chest pain
   - Shortness of breath

2. **Abdominal symptoms** preceding chest symptoms and includes:
   - Nausea
   - Vomiting
   - Diarrhea

3. Other **symptoms** include:
   - Increased heart rate (tachycardia)
   - Fever and/or chills
   - Fatigue
E-cigarette or vaping product use associated lung injury (EVALI) is the term currently used to describe lung abnormalities associated with this outbreak. Lung disease may be seen on imaging and include: Acute eosinophilic pneumonia, Diffuse alveolar damage, Organizing pneumonia, and Exogenous lipoid pneumonia.

Most of the cases who vaped THC developed acute exogenous lipoid pneumonia. Exogenous lipoid pneumonia is a lung disease caused by inhaling chemicals containing lipids (hydrocarbon or oil-based products). These lipids cause an inflammatory response within the small alveolar spaces in the lungs.

WHAT CAN PARENTS AND YOUTH DO:

• STOP/DO NOT USE E-CIGARETTE/ JUUL PRODUCTS OR PRODUCTS THAT CONTAIN THC!
• It is important to communicate to your children about the dangers of EVALI. Visit these websites for tips on starting the conversation.
  o How to talk with your kids about vaping
  o Surgeon General: Parent tip sheet on e-cigarettes
• If you use e-cigarette products, or your child vapes, and you experience or notice any of the symptoms described above, seek medical care immediately.
• Regardless of the ongoing investigation:
  o Youth and young adults should not use e-cigarette products; visit catchmybreath.org to learn about a free 5th-12th grade CATCH My Breath E-cigarette prevention program.
  o Women who are pregnant should not use e-cigarette products.
  o If you do use e-cigarette products, you should not buy street products (for example, e-cigarette products with THC or other cannabinoids).
  o You should not modify e-cigarette products or add any substances to these products that are not intended by the manufacturer.
  o Adult smokers who are attempting to quit tobacco products should use evidence-based treatments, including counseling and FDA-approved medications; see CDC: Ways to Quit Smoking. If you need help quitting tobacco products, including e-cigarettes, contact your doctor or another medical provider.

Updated Sources:
• CDC: Outbreak of Lung Injury Associated with the Use of E-Cigarettes.
• FDA: Lung Illness Associated with Use of Vaping Products.
• MMWR: Severe Pulmonary Disease Associated with Electronic-Cigarette–Product Use — Interim Guidance
• MMWR: Notes from the Field: Outbreak of Electronic-Cigarette–Associated Acute Lipoid Pneumonia—North Carolina, July–August, 2019
• What’s the Bottom Line on the Risks of E-cigarettes for Kids, Teens, and Young Adults?
• FDA’s Information on Vaporizers, E-cigarettes, and other Electronic Nicotine Delivery Systemsexternal iconexternal icon
• Michael & Susan Dell Center for Healthy Living: JUUL fact sheet, vaping become epidemic among students.