

KEY PARTNER MESSAGES ON LUNG INJURY ASSOCIATED WITH E-CIGARETTE USE, OR VAPING



TOP LINE MESSAGES

- The Centers for Disease Control and Prevention (CDC) is working with the Food and Drug Administration (FDA), state health departments, and public health and clinical partners to investigate the multistate outbreak of lung injury associated with use of e-cigarette, or vaping, products.
- CDC has activated the Emergency Operations Center (EOC). More than 100 staff from across the agency and in the field are working to support these investigations.
- The latest national findings suggest products containing tetrahydrocannabinol (THC) play a role in the outbreak. However, no single product or substance has been linked to all lung injury cases.
- At this time, the specific chemical exposure(s) causing the lung injuries that we are seeing in this outbreak remains unknown.
- The updated number of cases, number of deaths and impacted states and territories are reported on the CDC Lung Injury website every Thursday.
- The most up-to-date, publicly available information can be found at: www.cdc.gov/lunginjury.
- If the public has questions, they can contact CDC-INFO at 800-232-4636, or visit <https://wwwn.cdc.gov/dcs/ContactUs/Form>.

ISSUE, SYMPTOMS, AND TREATMENTS

- Based on reports from several states, patients have reported the following:
 - respiratory symptoms (cough, shortness of breath, chest pain)
 - gastrointestinal symptoms (nausea, vomiting, abdominal pain, diarrhea)
 - or non-specific symptoms (fatigue, fever, weight loss). Some patients reported that their symptoms developed over a few days, while others have reported that their symptoms developed over several weeks
- All patients reported history of using e-cigarette, or vaping, products and no consistent evidence of an infectious cause has been discovered. Therefore, the suspected cause is a chemical exposure.



- Unfortunately, there have been some deaths associated with this lung injury.
- The latest findings from the investigation suggest products containing THC play a role in the outbreak. Most patients report using THC-containing products, or both THC-containing and nicotine-containing products; some report using nicotine-containing products only.
- The investigation has not identified any specific e-cigarette or vaping products (devices, liquids, refill pods, and/or cartridges), brands, or substances that are linked to all cases.

INVESTIGATION DETAILS

- CDC is working 24/7 to identify the cause or causes of this outbreak through partnerships with states and other federal agencies. CDC has activated the EOC to coordinate activities and provide assistance to states, public health partners and clinicians around the nation.
- CDC's Lung Injury response efforts are committed to:
 - Identify and define the risk factors and the source for lung disease associated with e-cigarette product use, or vaping
 - Detect and track confirmed and probable cases in the US
 - Communicate actionable recommendations to state, local, and clinical audiences
 - Establish lab procedures that can assist with the public health investigation and patient care
- CDC continues to collaborate with multiple public health and clinical partners to optimize response efforts. Some of these include:
 - CDC worked with and continues to engage with states and the Council of State and Territorial Epidemiologists (CSTE) to create and refine a case definition to classify cases in a consistent way. This case definition along with other investigation tools (medical extraction form, case interview form) used to conduct the investigations will continue to evolve as more data becomes available
 - CDC is working closely with the Association of Public Health Laboratories (APHL) to understand state level laboratory efforts
 - CDC continues to work closely with the Association of State and Territorial Health Officials (ASTHO) to engage state health officers and public health preparedness coordinators on this outbreak.
- Additional information has also been released in a Health Alert Network (HAN) Health Advisory and published in Morbidity and Mortality Weekly Report (MMWR) and New England Journal of Medicine (NEJM).
 - [MMWR article on characteristics of cases](#), (Sept. 27, 2019)
 - [MMWJR article with additional information on cases in Illinois and Wisconsin](#), (Sept. 27, 2019)
 - [MMWR article with interim guidance from CDC](#), (September 13, 2019)
 - [MMWR article on from North Carolina](#), (September, 13, 2019)
 - [NEJM article on cases from Illinois and Wisconsin](#), (September 6, 2019)
 - [CDC's HAN Health Advisory](#), (August 20, 2019)

RECOMMENDATIONS FOR THE PUBLIC

- While this investigation is ongoing, CDC recommends people consider refraining from using e-cigarette, or vaping, products, particularly those containing THC.
- If you have recently used an e-cigarette, or vaping, product and you have [symptoms](#) like those reported in this outbreak, see a healthcare provider.
- Regardless of the ongoing investigation:
 - Anyone who uses an e-cigarette, or vaping, product should not buy these products (e.g., e-cigarette or vaping products with THC, or CBD oils) off the street, and should not modify or add any substances to these products that are not intended by the manufacturer
 - [Youth and young adults should not use e-cigarette, or vaping products](#)
 - [Women who are pregnant should not use e-cigarette, or vaping products](#)
 - Adults who do not currently use tobacco products should not start using e-cigarette, or vaping, products
 - THC use has been associated with a wide range of health effects, particularly with prolonged heavy use. The best way to avoid potentially harmful effects is to not use THC, including through e-cigarette, or vaping, products. Persons with marijuana use disorder should seek evidence-based treatment by a health care provider

RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

- As this investigation continues, CDC encourages clinicians to report possible cases of e-cigarette, or vaping associated lung injury to their local or state health department for further investigation.
- Clinicians routinely consider multiple possible etiologies when evaluating and treating patients presenting with respiratory symptoms. In some cases, treatment directed at one or more of these etiologies must be initiated before the results of diagnostic testing, or other clinical features enable the list of possibilities to be narrowed.
 - For the coming flu season, CDC recommends that clinicians strongly consider respiratory infections such as influenza, as well as lung injury associated with e-cigarette use, or vaping, in all patients presenting with respiratory symptoms and a history of e-cigarette use, or vaping
 - Clinicians are further advised that it may not be possible to definitively distinguish between respiratory infection and lung injury associated with use of e-cigarettes, or vaping, using available testing. Therefore, therapy directed at both may be necessary. Decisions on the initiation or discontinuation of treatment should be based on specific clinical features and, when appropriate, in consultation with specialists
- More information for healthcare providers is located on our website: www.cdc.gov/lunginjury under “For Healthcare Providers.
- If use of e-cigarette, or vaping, products is suspected as a possible cause for a patient’s lung injury, a detailed history of the substances used, the sources, and the devices used should be obtained, as outlined in guidance issued by CDC on August 30 through a [Health Alert Network \(HAN\) Health Advisory](#).

RECOMMENDATIONS FOR LOCAL AND STATE PUBLIC HEALTH DEPARTMENTS

- While states are conducting their own investigations, CDC is providing technical support to states:
 - CDC is working closely with state health departments and the FDA to facilitate collection of products for testing, facilitate information sharing between state health departments and clinicians, coordinate national communication activities, and provide health messaging tools for states
 - States may also consider submission of bronchoalveolar lavage (BAL), fixed lung biopsy tissues, or autopsy tissues to CDC for evaluation. Information on how sample may be submitted is posted on the CDC [Lung Injury healthcare providers website](#)
 - CDC has also deployed staff to assist some state health departments with their respective state investigations when requested, such as through an Epi Aid
 - CDC is providing communication technical support to states
 - A digital toolkit is also posted on the website
- State public health officials should promptly notify CDC about possible cases of e-cigarette, or vaping, associated lung injury via eocevent101@cdc.gov.
- An updated case definition can be found on CDC's response website at www.cdc.gov/lunginjury. Contact CDC at eocevent101@cdc.gov for reporting guidelines, case investigation forms, technical assistance with an epidemiologic investigation.
- State health department officials seeking technical assistance with laboratory testing can discuss with their state health department laboratories or contact CDC at eocevent101@cdc.gov.
- More information for health departments is located on our website: www.cdc.gov/lunginjury under "For State and Local Health Departments."