

**PENNSYLVANIA DEPARTMENT OF HEALTH**  
**2019 – PAHAN - 460 – 10-04-ADV**  
**Update on Outbreak of Lung Injury Associated with**  
**E-cigarette Product Use or Vaping**



<b>DATE:</b>	10/4/2019
<b>TO:</b>	Health Alert Network
<b>FROM:</b>	Rachel Levine, MD, Secretary of Health
<b>SUBJECT:</b>	<b>Update on Outbreak of Lung Injury Associated with E-cigarette Product Use or Vaping</b>
<b>DISTRIBUTION:</b>	Statewide
<b>LOCATION:</b>	Statewide
<b>STREET ADDRESS:</b>	Statewide
<b>COUNTY:</b>	Statewide
<b>MUNICIPALITY:</b>	Statewide
<b>ZIP CODE:</b>	Statewide

**This transmission is a “Health Advisory”: provides important information for a specific incident or situation; may not require immediate action.**

**HOSPITALS:** PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, INFECTION CONTROL, NURSING, AND LABORATORY STAFF IN YOUR HOSPITAL  
**EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE  
**FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE  
**LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE  
**PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP.

**Summary**

- The Pennsylvania Department of Health (PA DOH) has confirmed one death of a patient with lung injury associated with vaping.
- PA DOH strongly urges everyone but particularly children, teens and young adults, pregnant women, and adults who are vaping illegally bought products to stop vaping.
- As of October 1, PA DOH has reported 9 confirmed and 12 probable cases to the Centers for Disease Control and Prevention (CDC) and is investigating 63 other patients.
- As of October 1, more than 1000 cases and 18 deaths have been reported to the CDC.
- Report cases who have a history of e-cigarette product use, or vaping, within the past 90 days and lung injury of unclear etiology, to the PA DOH. Please use the attached case report form to report cases.
- Fax the attached "Lung Injury Associated with E-cigarette Product Use or Vaping Initial Suspect Case Report Form," to 717-772-6975 or by securely e-mailing the form to [ra-dhVapingReporting@pa.gov](mailto:ra-dhVapingReporting@pa.gov). If the patient is a known Philadelphia resident, please send the case report form to the Philadelphia Department of Public Health (fax: 215-238-6947 or email: [ACD@phila.gov](mailto:ACD@phila.gov)). If the patient is a known Allegheny County resident, please send the case report form to the Allegheny County Health Department (fax: 412-578-8025)
- Obtain e-cigarette or vaping products from patients for testing by PA DOH. Please see submission guidance below.
- Call PA DOH at 1-877-PA-HEALTH or your local health department if you have any questions.

### **Update:**

The Pennsylvania Department of Health (PA DOH) has confirmed one death of a patient with lung injury associated with vaping and recommends that people do not vape. Additionally, as of October 1, PA DOH has reported 9 confirmed and 12 probable cases to the Centers for Disease Control and Prevention (CDC) and is investigating an additional 63 patients. Each of these cases have suffered serious lung injuries and most have been hospitalized.

### **Demographics**

The average age of Pennsylvania cases is in the mid-20s, and most cases under review in Pennsylvania are male. This is similar to what we are seeing nationally.

Cases are occurring across the state. Because reporting is coming from the Poison Control Centers in Philadelphia and Pittsburgh, and from health systems, hospitals, families and the media, the place where the case is reported from may not correspond to where the patient lives.

### **Reported Cases**

Reported symptoms and findings in cases of suspected vaping associated lung injury include:

- Shortness of breath, cough, and chest pain;
- Abdominal pain, nausea, vomiting, diarrhea;
- Fever, fatigue, weight loss;
- Bilateral perihilar infiltrates and ground glass opacities, often with peripheral sparing;
- Progression of symptoms over several days with similarities to a viral illness;
- Patients endorse vaping, often THC products, in the days to weeks preceding symptom onset.

### **How severe are these cases?**

The majority of the cases both in Pennsylvania and across the country have required hospitalization, and many have been life-threatening, with patients in comas and suffering from very serious health conditions. Unfortunately, we have also seen one death.

### **Recommendations For the Public**

PA DOH strongly urges everyone who is vaping illegally bought products to stop. In addition, PA DOH cannot guarantee the safety of products bought through the commercial market, or products bought through our medical marijuana program. In particular, PA DOH strongly urges everyone, but particularly children, teens and young adults, pregnant women, and adults who do not already use tobacco products not to vape.

### **Recommendations For Healthcare Providers**

As this investigation continues, clinicians should report possible cases of e-cigarette, or vaping associated lung injury to PADOH 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 and PA DOH 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.

Bronchoalveolar lavage or lung biopsies have been performed on some patients. The decision about whether to perform these procedures should be based on the overall clinical picture and in consultation with specialists. If these procedures are performed and clinical samples are obtained for testing, please refer to the HAN # 458, ([https://www.health.pa.gov/topics/Documents/HAN/2019-PAHAN--458-09-26-ADV-Vaping\\_update.pdf](https://www.health.pa.gov/topics/Documents/HAN/2019-PAHAN--458-09-26-ADV-Vaping_update.pdf)) for instructions on lipid staining and submission of specimen samples. However, conducting routine tissue processing and histopathologic evaluation is still important.

If e-cigarette product use, or vaping, is suspected as a possible etiology of a patient's severe lung injury, obtain detailed history regarding the substances used, the sources, and the devices used.

More information is located on CDC's website: [www.cdc.gov/lunginjury](http://www.cdc.gov/lunginjury) under "For Healthcare Providers".

### **Case Reporting to Public Health Authorities**

Report cases who have a history of e-cigarette product use, or vaping, within the past 90 days and lung injury of unclear etiology to the Pennsylvania Department of Health (PA DOH) or your local health department.

To report: Fax the attached "Lung Injury Associated with E-cigarette Product Use or Vaping Initial Suspect Case Report Form," to 717-772-6975 or by securely e-mailing the form to [ra-dhVapingReporting@pa.gov](mailto:ra-dhVapingReporting@pa.gov). If the patient is a known Philadelphia resident, please send the case report form to the Philadelphia Department of Public Health (fax: 215-238-6947 or email: [ACD@phila.gov](mailto:ACD@phila.gov)). If the patient is a known Allegheny County resident, please send the case report form to the Allegheny County Health Department (fax: 412-578-8025) or use the following link: <https://www.alleghenycounty.us/Health-Department/Resources/Data-and-Reporting/Infectious-Disease-Epidemiology/Reportable-Diseases-and-Conditions.aspx>.

### **Testing Guidance**

Determine if any remaining vaping product, including devices and liquids, is available for testing. Testing will be coordinated by PA DOH and local health departments through the PA DOH Bureau of Laboratories (BOL). Please use the attached product sample submission form (CEHM-7-VI) and instructions (CHEM-8-V2) to submit product samples to BOL or email [ra-dhVapingReporting@pa.gov](mailto:ra-dhVapingReporting@pa.gov) to request information for shipping samples to BOL.

Additional information is available from CDC at:

- Outbreak of Lung Injury Associated with E-Cigarette Use, or Vaping ([https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/severe-lung-disease.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html)).

PA DOH has previously released advisories via the Pennsylvania Health Alert Network (PA-HAN):

- <https://www.health.pa.gov/topics/prep/PA-HAN/Pages/2019-HAN.aspx>.

PA DOH will provide additional updates on this outbreak and investigation as more information becomes available.

Call PA DOH at 1-877-PA-HEALTH or your local health department if you have any questions.

Categories of Health Alert messages:

**Health Alert:** conveys the highest level of importance; warrants immediate action or attention.

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action.

**Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of October 4, 2019, but may be modified in the future.
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