

9/26/2019

*\* NOTICE: This health alert provides written guidance for health care professionals and others who may need to take action to prevent or control a notifiable condition. It is not intended to provide guidance for the general public.*

## Outbreak of Severe Lung Disease Associated with E-cigarette Use or Vaping

### Actions Requested

1. Report cases of lung injury of unclear etiology and a history of e-cigarette or vaping product use within the past 90 days to the Thurston County Health Department Communicable Disease reporting line at 360-786-5470.
2. Ask all patients who report e-cigarette or vaping product use within the last 90 days about signs and symptoms of respiratory illness.
3. Obtain detailed history, if e-cigarette or vaping product use is suspected as a possible etiology of a patient's lung injury, regarding:
  - Substance(s) used: nicotine, cannabinoids (e.g., marijuana, THC, THC concentrates, CBD, CBD oil, synthetic cannabinoids [e.g., K2 or spice], hash oil, Dank vapes), flavors, or other substances
  - Substance source(s): commercially available liquids (i.e., bottles, cartridges, or pods), homemade liquids, and re-use of old cartridges or pods with homemade or commercially bought liquids
  - Device(s) used: manufacturer; brand name; product name; model; serial number of the product, device, or e-liquid; if the device can be customized by the user; and any product modifications by the user (e.g., exposure of the atomizer or heating coil)
  - Where the product(s) were purchased
  - Method of substance use: aerosolization, dabbing, or dripping
  - Other potential cases: sharing e-cigarette products (devices, liquids, refill pods, or cartridges) with others
4. Determine if any remaining product, including devices and liquids, are available for testing. Contact public health at 360-786-5470 to coordinate testing.
5. Consider all possible causes of illness in patients reporting respiratory and gastrointestinal symptoms and e-cigarette product use. Evaluate and treat for other possible causes of illness (e.g., infectious, rheumatologic, neoplastic) as clinically indicated. Consider consultation with specialists (pulmonary, infectious disease, critical care, medical toxicology) as appropriate.
6. Clinical improvement of patients with lung injury associated with e-cigarette use has been reported with the use of corticosteroids. The decision to use corticosteroids should be made on a case-by-case basis based on risks and benefits and the likelihood of other etiologies.

9/26/2019

7. Lipoid pneumonia associated with inhalation of lipids in aerosols generated by e-cigarettes has been reported based on the detection of lipid-laden alveolar macrophages obtained by bronchoalveolar lavage (BAL) and lipid staining (e.g., Oil Red O, Sudan Black). The decision to perform a BAL should be based on individual clinical circumstances.
8. Lung biopsies have been performed on some patients. If a lung biopsy is obtained, lipid staining may be considered during pathologic examination, and is best performed on fresh tissue. Routine pathology tissue processing (including formalin-fixation and paraffin-embedding) can remove lipids. Conducting routine tissue processing and histopathologic evaluation is still important. Consider consultation with specialists in pulmonary medicine and pathology to help inform any evaluation plan.
9. Patients who have received treatment for lung injury related to e-cigarette or vaping product use should undergo follow-up evaluation as clinically indicated to monitor pulmonary function.
10. Remind patients that their healthiest option is to stop vaping and using tobacco products.

### **Background**

Cases of lung illness associated with the use of e-cigarette products continue to climb across the U.S. with 530 cases from 33 states, 7 deaths in 6 states, and 7 cases in Washington State in Mason, King, Pierce, Snohomish, and Spokane counties reported. Data on 70% of reported cases indicates 72% of cases are male, 67% are 18 – 34 years of age, and all cases have a history of e-cigarette product use or vaping. Most patients have reported a history of using e-cigarette products containing THC. Many patients have reported using THC and nicotine. Some have reported the use of e-cigarette products containing only nicotine. Patients who are part of this investigation have reported symptoms' like cough, shortness of breath, chest pain, nausea, vomiting, diarrhea, fatigue, fever, or abdominal pain.

Specific cause of the lung injuries is unknown. The investigation has not identified any specific e-cigarette or vaping product (devices, liquids, refill pods, and/or cartridges) or substance that is linked to all cases.

CDC recommends:

- Individuals concerned about these specific health risks, consider refraining from using e-cigarette or vaping products.
- Adults who used e-cigarettes containing nicotine to quit cigarette smoking, should not return to smoking cigarettes.
- Individuals who recently used an e-cigarette or vaping product and have symptoms like those reported in this outbreak see a healthcare provider.



9/26/2019

- 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 products.
  - Women who are pregnant should not use e-cigarette products.
  - Adults who do not currently use tobacco products should not start using e-cigarette products.

**Resources:**

CDC 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)

CDC Health Care Provider resources regarding Outbreak of Lung Injury Associated with E-Cigarette Use, or Vaping  
[https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/severe-lung-disease/healthcare-providers/index.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease/healthcare-providers/index.html)

WA State DOH – Severe Lung Illness  
<https://www.doh.wa.gov/Emergencies/SevereLungIllness>

**THANK YOU FOR REPORTING!**

TO REPORT A NOTIFIABLE CONDITION IN THURSTON COUNTY	
Voice mail for reporting Non- <b>immediately reportable conditions (24 hours a day)</b>	Phone: 360-786-5470 Fax: 360-867-2601
<b>Day time immediately reportable conditions</b>	360-786-5470 Communicable Disease Reporting Line that is checked hourly throughout the day
<b>After hours immediately and 24-hour reportable conditions or a public health emergency</b>	Call 911 and ask staff to locate the Health Officer.  If calling from outside Thurston County, call 360-704-2740 and ask staff to locate the Health Officer.
If no one is available with Thurston County Public Health and condition is <b>immediately notifiable</b>	1-877-539-4344