



DEPARTMENT OF  
**HEALTH AND HUMAN SERVICES**

Promoting and protecting health, well-being, self-sufficiency, and safety of all in Marin County.



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## **Public Health Alert: Vaping Associated Pulmonary Injury**

Dear Colleagues:

### **Situation Update**

Today, the Centers for Disease Control and Prevention (CDC) is reporting over 450 possible cases of severe lung illness associated with the use of [e-cigarette](#) products nationwide. There have been five confirmed deaths, including one death in Los Angeles County this week. There have been no reported cases or deaths in Marin County to date.

The severity of these vaping-related pulmonary illnesses and deaths is prompting a coordinated, national public health emergency response. All cases in California have been hospitalized, with most requiring respiratory support with supplemental oxygen, high-flow oxygen, or bi-level positive airway pressure (BiPAP). Approximately 25% of patients are experiencing respiratory failure requiring mechanical ventilation. All patients have reported using e-cigarette products. To reduce this public health threat, CDC has expanded its recommendations for clinicians.

### **Actions Requested of Clinicians**

1. Report cases of severe pulmonary disease of unclear etiology and a history of e-cigarette product use within the past 90 days to Marin Public Health by phone 415-473-4163 (after hours call 415-499-7237).
2. Screen patients for e-cigarette use and signs or symptoms of pulmonary illness during the past 90 days.
3. If a suspected case has a vaping product on hand, it should be collected and held for testing, to be arranged by Marin County Public Health. If product not available, Marin Public Health will conduct an interview to determine substance(s) used; substance source(s); device(s) used; and other potential cases, etc.
4. Clinicians should advise patients to discontinue e-cigarette use until the causative substance or e-cigarette product is identified.

### **Considerations for Treating Clinicians**

- Clinical improvement of patients with severe pulmonary disease 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.

- Lipoid pneumonia associated with inhalation of lipids in aerosols generated by e-cigarettes. The decision about whether to perform a BAL should be based on individual clinical circumstances.
- 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.

## **Background**

Vaping refers to the increasingly popular practice of inhaling vapor from an electronic smoking device, or e-cigarette, which heat-vaporizes liquids that can contain nicotine, chemical flavorings, cannabis, or other drugs. The liquids used in e-cigarettes are largely unregulated and can contain toxic chemicals that cause lung damage. These cases of lung injury come in the context of rapid increases in vaping rates across Marin. Nearly one in three 11<sup>th</sup> graders in Marin reports vaping on a regular basis, more than double the 2016 rate.

## **Resources**

CDC. Outbreak of Lung Illness Associated with Using E-cigarette Products. [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 Alert Network. Severe Pulmonary Disease Associated with Using E-Cigarette Products. <https://emergency.cdc.gov/han/han00421.asp>

California Department of Public Health. Risks of Vaping. <https://www.cdph.ca.gov/Programs/CCDPHP/Pages/RisksOfVaping.aspx>

Marin Health and Human Services (Marin HHS). Alarming New Data on Youth Vaping in Marin. <https://www.marincounty.org/main/county-press-releases/press-releases/2018/hhs-vaping-092118>