Vaping-Associated Severe Acute Lung Injury

The CDC continues to report on an outbreak of severe acute lung injury (ALI) associated with the use of electronic cigarettes which began in July, 2019. To date, 380 confirmed and probable cases have been reported from 36 states and territories, including 13 from Iowa. As of September 12, there have been six deaths. The exact cause of the ALI is still uncertain.

Symptoms from vaping-associated ALI usually develop over the period of a few days, but in some cases the symptoms progressed slowly over several weeks. Symptoms include dyspnea, cough and chest pain. Approximately half of cases in one series also reported nausea, vomiting, diarrhea and abdominal pain. Treatment with corticosteroids appears to be helpful while treatment with antibiotics has not appeared to alter the course of the disease.

E-cigarettes entered the U.S. market in 2006. They were originally intended to heat and vaporize a nicotine-containing liquid that the person would then inhale. Inhaling vaporized nicotine led to “vaping” and “vape” becoming popular slang terms for e-cigarette use. The devices themselves are referred to as vape pens, vapes, mods, e-hookahs, dab pens, tanks and e-cigs, and are also known by several brand names.

This outbreak has brought several important issues to light:
(1) Case reports of ALI caused by vaping nicotine were first published in 2012.
(2) Laboratory studies have shown that liquid products intended for use in e-cigarettes can be toxic to cells grown in culture.
(3) Non-nicotine products (e.g., THC oils) are routinely vaped.
(4) The current generation of vaping devices can produce high temperatures which could cause unknown chemical reactions in the liquid being vaped.

Important Points for Clinicians
(1) Health care providers should obtain a vaping history in patients with severe ALI of an unclear etiology.
(2) Patients with a vaping history should be asked about pulmonary symptoms.
(3) Report any suspicious case of ALI to the Iowa Department of Public Health.

For further information click on this [LINK](https://www.cdc.gov) for the CDC website:

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Did you know …..

Commercially made Play-Doh® is considered non-toxic; the salt (sodium chloride) content of commercial Play-Doh® is listed as 5.2%. However, there are many recipes on-line for homemade play dough, and many of these recipes use large quantities of table salt.

The IPCC evaluated nine popular play dough recipes found on-line. The average salt content was calculated and ranged from 16.8% to 34%.

It is important to identify whether a child’s exposure to play dough was related to the commercial or a home-made product because a homemade product can change a child’s usually non-toxic exposure to a toxic one instead.