EVALI: New Info About Vaping-related Illness

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With e-cigarettes and vaping rising in popularity, a branch of lung illnesses has increased: e-cigarette and vaping product associated lung injury (EVALI). As of early 2020, the CDC reports 68 deaths in the US linked to e-cigarettes and vaping. Hospitalizations for EVALI-related symptoms have decreased, but it's still important to understand what is known about EVALI and how it affects the body.

In 2011, reported use of any kind of e-cigarette or vaping device in the United States was close to zero. Compared to 2019's usage rate of 29 percent, largely among young adults, the sharp upturn in prevalence is noteworthy and urgently important to health professionals and the health community at large. In addition, many key factors in understanding EVALI, the cluster of associated lung conditions, are not yet fully understood.

EVALI refers to an inflammatory reaction in the lungs triggered by inhaled substances. With vapes bought illicitly the risk of it containing cheap filler or cutting agents increases. This may be one reason why health professionals are concerned about their potential to damage the lungs. With all the varying filler agents, the EVALI type varies also. Sometimes it can appear as pneumonia, damaging air sacs in the lungs.

Because an EVALI diagnosis is so difficult to confirm, doctors rely on identifying symptoms to diagnose someone with EVALI. Because there's not just one lab test for all the associated conditions of EVALI, doctors might also need to know the patient's recent history of vaping or from any abnormalities that show up on lung scans or look for evidence of infections. If a more thorough biopsy like a bronchoscopy is required, most patients are too sick to endure the procedure; it also didn't give any more information toward identifying the root cause of the illness.

There is likely more than one ingredient in illicit vapes and e-cigs that are causing people to have EVALI. Because there are thousands of products on the market, each vape may affect people differently. This variation in composition makes it hard to accurately identify the root cause of EVALI. Some people who use vapes and e-cigs don't have any adverse effects, further complicating research into the origin of the illness.

Currently, vitamin E acetate is an ingredient strongly associated with EVALI. An oil derivative, vitamin E acetate is a thickener that has been found in over half the products that have caused EVALI. The most common brand associated with symptoms is called Dank Vapes, THC oil products. Exclusive use of THC vapes has been noted to increase risk for EVALI. Other chemicals that have been found in bronchoscopies of EVALI patients are triglycerides, plant oils

petroleum distillates and unregulated flavoring products. Heating certain ingredients like propylene glycol can create harmful compounds, while humectants added to produce vapor are also dangerous when ingested.

Considering vaping and e-cigarettes are a relatively new market, the effects of chronic, long-term vaping and e-cig smoking is not entirely clear or conclusive. Generally, most health organizations will advise people away from vaping THC products, especially those purchased on the illicit market.

If you or someone you know needs help quitting, call 800-300-8086 or 800-600-8191.

https://www.health.harvard.edu/blog/evali-new-information-on-vaping-induced-lung-injury-2020040319359
Retrieved Feb 2023.