

Probe into vaping-linked illnesses turns up form of vitamin E from skin creams [Updated]



Enlarge / Some of the black-market vaping products that have been found to contain vitamin E acetate, according to the New York State Department of Health.

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Federal and state officials investigating the mysterious eruption of lung illnesses linked to e-cigarette use have turned up a vitamin in vape products that is normally found in

supplements and skin creams.

The chemical is vitamin E acetate, or alpha-tocopherol acetate, which is a less acidic, more shelf-stable form of vitamin E. It has an acetate group where an alcohol is usually found on the vitamin's chemical structure. It's used in a wide range of personal care products based on (largely unproven) health claims about vitamin E's antioxidant effects. The more stable form of the vitamin appears in anti-aging wrinkle creams, shave gels, lip balms, shampoos, and soaps, as well as vitamin pills.

Vitamin E acetate is generally considered safe for ingestion and topical use. It's unclear how the oily supplement might affect the lungs when inhaled from vape products. But based on the latest evidence in the vaping investigations, officials are beginning to suspect the effects are not good.

The New York State Department of Health announced Thursday that their lab tests found vitamin E acetate at "very high levels" in nearly all of the cannabis-containing vape liquids linked to illnesses in the state.

As Ars has previously reported, vaping liquids containing THC, or tetrahydrocannabinol, have been prime suspects in the investigation since early on. THC is the primary psychoactive ingredient in cannabis.

"At least one vitamin E acetate containing vape product has been linked to each patient who submitted a product for testing," the department said in a statement. Many of the products were counterfeits, the department added, which have been another element thought key to the illnesses.

The health department noted that physicians in the state had reported 34 cases of lung illnesses linked to vaping cannabis-containing liquids. None of the nicotine-based products the state tested turned up vitamin E acetate.

Experts speculate that the oily vitamin E acetate—or its potentially toxic derivatives created when it is vaporized—could coat the lungs, damaging lung cells and triggering immune responses. This could cause breathing problems and other symptoms.

Foggy facts

Patients with the lung illnesses linked to vaping often suffer gradual breathing difficulties, coughing, fatigue, chest pain, and weight loss, which leads to hospitalization. Some have also experienced vomiting and diarrhea.

In all, doctors have reported 215 possible cases of vaping-related illnesses in 25 states as of August 27, according to the Centers for Disease Control and Prevention and the Food and Drug Administration. There have been two reported deaths linked to the illnesses, one in Illinois and another in Oregon.

Officials at the FDA also found vitamin E acetate in suspect cannabis-containing vape liquids they tested, according to a report by the Washington Post Thursday.

However, FDA Senior Adviser Michael Felberbaum told NPR in an emailed statement that the agency was not convinced that vitamin E acetate was behind the illnesses and is still pursuing other substances.

“More information is needed to better understand whether there’s a relationship between any specific products or substances and the reported illnesses,” Felberbaum said in the statement.

“The number of samples we have received continues to increase and we now have over 100 samples for testing,” he said. “The FDA is analyzing samples submitted by the states for the presence of a broad range of chemicals, including nicotine,

THC and other cannabinoids along with cutting agents/diluents and other additives, pesticides, opioids, poisons and toxins. No one substance, including Vitamin E acetate, has been identified in all of the samples.”

In the meantime, New York health officials cautioned, “Anyone using vape products should never use unregulated products purchased ‘off the street.’” They also cautioned against unregulated products containing cannabis and that users “should never modify vape products or add any substances to these products that are not intended by the manufacturer.”

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