

Vaping vs Vaporizing

There is a difference.

Vaping - Vaping is where an oil based product is drawn over a heating coil which steams the product into an aerosol (aka vapor). The vapor is inhaled.

Vaporizing - Vaporizing heats up dried plant material at a low, controlled level so that the properties in the plant turn into vapor. The vapor is inhaled. In medical cannabis states, this is sometimes the preferred method of uptake for doctors to recommend to their patients. This is not to be confused with vaping.

Vaping/Vaporizing Systems

Vaping/Vaporizing devices use two main types of systems:

Closed System - A cartridge is prefilled with nicotine liquid or cannabis concentrates.

Open System - The consumer personally loads the material to be vaped/vaporized. This allows consumers to use manufactured product purchased in bulk or to use homemade or altered products.

Types of Devices

There are many different ways to vape/vaporize a product, including:

E-Cigarette - A battery powered device that heats a nicotine liquid into an aerosol that the consumer inhales and exhales. Some e-cigarettes are designed to look like regular cigarettes.

Vape Pens / Portable Vaporizers - A common handheld device which has a built in atomizer in the cartridge that is intended to be used with nicotine or cannabis concentrates. Some portable vaporizers are designed for vaporizing cannabinoids and terpenes from unprocessed plant material.

Table Top Vaporizers - A larger device that provides the user full control over the temperature setting and typically uses dried plant material. (Example: Volcano Vaporizer is a registered class II medical device.¹)

There are some handheld versions that use dried plant materials

Vaping Materials

Depending on the device, consumers will require different materials:

Nicotine Liquid (aka e-juice, JUUL) - Nicotine is extracted from tobacco and mixed with a cocktail of flavorings, colorings and assorted chemicals. The product is then put in a cartridge for vaping.

Cannabis Concentrate - Products made from the Cannabis sativa L plant that have been processed to keep only the most desirable plant compounds, while removing excess plant material and other impurities. The concentrate can then be put in a cartridge for vaping or be used in other manners (e.g. put in food for eating, placed in salve for topical application, etc).

Cannabis Flower - This is the dried flower of the Cannabis sativa L plant, which includes hemp flower. As of today, none of the recent vaping related illnesses or deaths have been tied to flower-based vaporizing.

¹ https://www.pharmasystems.com/index.php?route=product/product&product_id=3811

CDC Data and Vaping Harm

Preliminary reports have made clear that a high percentage of the illnesses are causally linked to cannabis or nicotine products purchased from the illicit market that contain potential adulterants and contaminants.

- 2,290 EVALI (e-cigarette / vaping, associated lung injury) cases have been reported to the CDC, including 47 (2% of total cases) EVALI-associated deaths.²
- Those hospitalized were
 - 15% of patients were under 18 years old;
 - 38% of patients were 18 to 24 years old;
 - 24% of patients were 25 to 34 years old;
 - 23% of patients were 35 years or older.³
- Recent CDC laboratory test results of bronchoalveolar lavage (BAL) fluid samples found vitamin E acetate in all of the samples.
 - CDC tested for a range of other chemicals that might be found in e-cigarette, or vaping, products, including plant oils, petroleum distillates like mineral oil, MCT oil, and terpenes (which are compounds found in or added to Cannabis products). None of these chemicals of concern were detected in the BAL fluid samples tested.
 - The affected patients used both THC and nicotine vape products. THC was identified in 82% of the samples and nicotine was identified in 62% of the samples. Thus, 48% had used both THC and nicotine products.

Note: Products purchased from licensed operators within the growing number of state cannabis programs require third-party testing for product safety, including screening for adulterants and contaminants.

Anne Schuchat, Principal Deputy Director at the Centers for Disease Control and Prevention

“The data so far point to a much greater risk associated with THC-containing products from informal sources than licensed dispensaries.”⁴

“I do think that labeling and information can help people know what they’re getting and then the systems that are there to enforce that the product is what it says it is can also help the consumer.”⁵

***This document was compiled for public comment for Interim Charge Hearing of Health and Human Service, held on December 3rd, 2019.*

² https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html

³ https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html#latest-outbreak-information

⁴ <https://thehill.com/opinion/healthcare/470514-better-regulations-not-bans-are-needed-to-curb-the-thc-vaping-crisis>

⁵ October 29th, 2019 on CSPAN