



TOXTALKS

A BULLETIN FOR HEALTHCARE PROFESSIONALS WHO MANAGE POISONED PATIENTS

Blue Ridge Poison Center

University of Virginia Health

March 2021

Delta-8-THC: The Latest Cannabinoid

The cannabis plants, commonly known for their ability to produce marijuana, have numerous chemical compounds called cannabinoids. The most well known cannabinoids include delta-9-tetrahydrocannabinol (often referred to simply as “THC”) and cannabidiol (CBD). However, recently U.S. poison centers have been receiving calls about exposures to the cannabinoid delta-8-tetrahydrocannabinol, or delta-8-THC.

What is delta-8-THC?

Delta-8-THC is a chemical component of the cannabis plant *Cannabis sativa*. Delta-8-THC occurs naturally in very small concentrations, but can be extracted and concentrated from both hemp and marijuana plants. It can also be synthetically derived by converting CBD into delta-8-THC. It is structurally similar to delta-9-THC, but delta-8-THC is reportedly less potent and less psychotropic. Use of delta-8-THC appears to have significantly increased in popularity within the past year. Clinical studies are lacking and health benefits are anecdotal. Consumers endorse numerous benefits, including that “delta-8” has better pain relief with a similar but more clear-headed ‘high’ than that of delta-9-THC. Such anecdotal reports of delta-8-THC benefits are soaring on social media websites with users promoting it for aiding mental health with less associated paranoia, anxiety, and sedation. Consumers also report using delta-8-THC in addition to their prescription medications, including medicines for treatment of major depressive disorder or substance use disorder.

What clinical effects can occur after using delta-8-THC?

Cases of delta-8-THC ingestions reported to poison control centers have been associated with a variety of clinical symptoms, including drowsiness, bradycardia, and hypotension sometimes requiring vasopressors. Other patients report feeling confused and anxious, with tachycardia and generalized numbness. The variation in clinical effects from delta-8-THC use is not unexpected, as people respond

Continued next page

**Free. Fast. Expert help.
24 hours a day, 7 days a week.**



BRPC STAFF

Director

Christopher Holstege, MD

Nursing Director

Beth Mehring, MSN

Medical Toxicologists

Andy Baer, MD
Heather Borek, MD
Nathan Charlton, MD
Justin Rizer, MD

Medical Toxicology Fellows

Aaron Frey, DO
Avery Michienzi, DO
Jennifer Ross, MD, MPH

Epidemiologist

Saumitra V. Rege, MS, PhD

Poison Specialists

Andre Berkin, BSN, CSPI
Michael Brookshire, BSN, CSPI
Jenni Goodwin, BSN, CSPI
Jennifer Horn, BSN, CSPI
Teresa Kinzie, RN, CSPI
Kathy Mayo, RN, CSPI
Lauren Steinhart, MSN, RN
Lisa Turner, RN, BSN
Steven Yoder, BSN, CSPI

Public Health Educator

Kristin Wenger, MA, BS

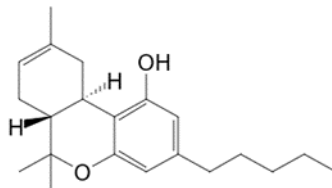
Administrative Specialists

Heather Collier
Teresa Dorrier

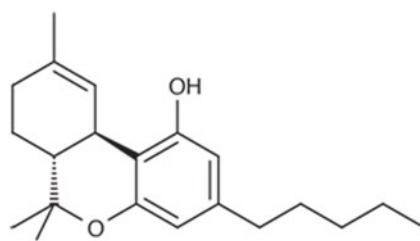
to other cannabinoids, i.e. delta-9-THC, in a variety of ways. With an unpredictable clinical picture, healthcare practitioners must often rely on patients to be forthcoming about their use of delta-8-THC. Urine drug screens may be helpful as delta-8-THC may be detected on screening tests for THC metabolites. However, these commercial urine drug screens do not differentiate among the cannabinoids. Studies demonstrating detection of delta-8-THC and its cross-reactivity with various urine drug screens have not been conducted.

What products contain delta-8-THC?

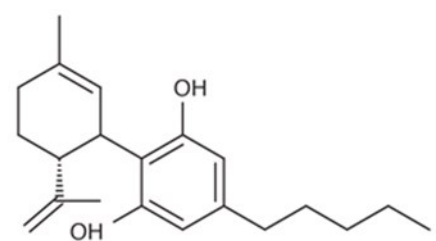
Hoping to capitalize on the potential for a future fad, numerous delta-8-THC products have started appearing on the market, including vape cartridges, tinctures, joints, blunts, gummies, syrups, and other edibles and beverages. These products can be purchased over-the-counter at gas stations, local convenience stores, CBD and vape shops, and online. There is no required



Delta-8-tetrahydrocannabinol



Delta-9-tetrahydrocannabinol (THC)



Cannabidiol

quality control for these products, and consumers must blindly trust that these products match the labels (if there is a label with an ingredient list present). These products are purchased both by users confusing them for CBD as well as users looking for a “legal” version of delta-9-THC. Unfortunately, these gummies and other edibles frequently resemble candy and thus are enticing to young children. There have been reports of toddlers ingesting gummies containing delta-8-THC and developing symptoms including sedation, agitation, tachycardia progressing to bradycardia, hypotension, and bradypnea.

Continued next page

For healthcare providers:

Providers should be aware of the emergence of delta-8-THC products, be able to properly screen patients for its use, and provide appropriate education to patients about its potential for harm. There is no antidote and supportive care should be provided to symptomatic patients post-exposure. Please contact the Blue Ridge Poison Center at 1800-222-1222 (or directly at 1-800-451-1428).

For further reading:

<https://pubchem.ncbi.nlm.nih.gov/compound/delta8-THC>

<https://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq>

Images from:

<https://spectrabase.com/spectrum/ArsxkUfSFEZ>

https://www.researchgate.net/publication/256190766_Cannabis_a_complex_plant_different_compounds_and_different_effects_on_individuals

The Blue Ridge Poison Center receives funding from University of Virginia Health, the Virginia Department of Health, and the U.S. Health Resources Services Administration (HRSA). We are accredited by the American Association of Poison Control Centers. We've been proudly serving the Commonwealth since 1978.

Poison safety tips, free materials, & more:

