

An Overview of Dravet Syndrome: Cannabinoids and CBD Research



Caption: CBD oil may give kids with Dravet syndrome their health—and childhood—back.

Meta Description: *Learn how CBD oil is used in the treatment of epileptic conditions like Dravet syndrome. Find information on dosage, research, and benefits of using CBD to prevent seizures.*

For individuals with epilepsy, cannabidiol (CBD) derived from medical cannabis has proven to be effective for symptom control and management. So much so, the United States Food and Drug Administration (FDA) recently approved the use of the CBD-based medication Epidiolex for people who are at least two years of age suffering from seizures caused by Lennox-Gastaut syndrome and Dravet syndrome.

Sometimes referred to as a type of “catastrophic epilepsy,” Dravet syndrome is a rare form of childhood epilepsy. The seizures associated with Dravet syndrome are severe, frequent, difficult to treat, and can be fatal by way of sudden unexpected death in epilepsy ([SUDEP](#)).

While there is still much scientific research left to be done, CBD oil is currently showing a great deal of potential in the management and prevention of Dravet syndrome seizures.

Here you’ll find a complete overview of everything you need to know about using CBD oil for Dravet syndrome.

Benefits of Using CBD Oil to Treat Symptoms of Dravet Syndrome

It's no secret that [CBD oil yields a host of potential health benefits](#), from [reducing inflammation](#) to [tampering anxiety](#) to even [helping children with ADHD](#). But how does CBD oil stack up against traditional medicines in the treatment of the epileptic symptoms associated with Dravet syndrome?

Many of the traditional treatments for Dravet syndrome come with a range of harmful side effects, and some common pharmaceuticals prescribed for other forms of epilepsy, like Lamictal, can make the condition worse. These roadblocks make treating Dravet syndrome especially difficult.

The first-line anticonvulsant medications frequently prescribed to sufferers of Dravet syndrome are:

- Clobazam (brand names Onfi, Frisium), which can cause side effects like:
 - Drowsiness.
 - Fatigue.
 - Weakness.
 - Constipation.
 - Insomnia.
 - Urinary tract infection.
 - Vomiting.
 - Pneumonia.
 - In serious and rare cases, suicidal thoughts and behavior.
- Valproic acid (brand names Depakote, Depakene), which has side effects including:
 - Dizziness.
 - Drowsiness.
 - Issues with walking or body coordination.
 - Vomiting and nausea.
 - Mood changes, which could include anxiety, depression, and irritability.
 - Worsening of seizures, in rare cases.

In children, these side effects may be prolonged or more pronounced and can make an already difficult childhood more painful.

Conversely, CBD oil has little to no side effects and, according to a [report by the World Health Organisation \(WHO\)](#), is “generally well tolerated, with a good safety profile.”

Unlike whole-plant cannabis, CBD oil contains only trace elements of tetrahydrocannabinol (THC) and therefore doesn't carry the intoxicating effects associated with marijuana use. In other words, [CBD oil will not get you high](#).

Add to this the fact that CBD oil has a relatively low price point, with most products starting around \$0.10 per mg and maxing out around \$0.50 per mg. (However, it should be noted the CBD oil referred to here is *not* inclusive of Epidiolex, which costs a much prettier penny—[\\$32,500 per year](#) to be exact.)

How to Use CBD Oil to Treat Dravet Syndrome Symptoms

Because CBD oil has yet to be fully researched, there is no ideal dose for treating Dravet syndrome. The introductory dosage recommendation for Epidiolex—2.5mg of CBD per 1 kilogram of body weight, taken twice daily—may be an effective starting point, but always consult your pediatrician beforehand. For severe Dravet syndrome seizures, additional doses may be needed; for these instances, investing in a small bottle of high-strength CBD oil drops is an option. As of yet, there are no dosage guidelines for using CBD oil to manage seizures in patients younger than 2 years old.

When it comes to the types of CBD products you'll use to manage your child's Dravet-induced epilepsy, there is a range of options available. CBD oil [edibles](#), capsules, and drops are the most common choices but the one you choose depends on whatever is easiest and most comfortable for your child. For young children, edibles and capsules may be difficult to swallow while water-soluble CBD oil drops can be placed directly into the mouth or mixed into another liquid for easier consumption.

[Consult with your child's doctor](#) and test out a few different delivery methods until you find the one that best fits your needs. You might also consider speaking with a [cannabis doctor](#) who specializes in using CBD as a medical treatment.

Effectiveness of CBD Oil in Treating Symptoms of Dravet syndrome

CBD oil has been so effective at treating seizures caused by Dravet syndrome, that it has been federally approved for use in patients over two years old in the form of the prescription Epidiolex. In [a 2014 clinical trial](#) (preceding the FDA's approval of the drug), patients who took Epidiolex over a 14-week period saw a 39% decrease in the number of monthly seizures they experienced. Promising results like this helped pave the way for federal approval of CBD oil as a viable option in managing treatment-resistant epilepsy.

Another encouraging study on the use of CBD oil for treating Dravet syndrome was published in the [New England Journal of Medicine in 2017](#). A test was conducted on 120 children with Dravet syndrome and drug-resistant seizures. Half of the participants were given 20mg/kg of CBD and half were given a placebo. After 14 weeks the mean number of seizures per month in the test group had dropped from 12.4 to 5.9, representing a 52% decrease in seizure frequency, while the placebo group had only dropped from 14.9 to 14.1. At the end of the trial, 5% of patients who were taking CBD reported they were having no seizures.

The exact manner in which CBD produces these anticonvulsant effects is unknown. Curiously, it doesn't appear to follow the behaviors typically expected from medications used to address epilepsy, such as impacting the [CB1 cannabinoid receptor](#) or sodium channels. Instead, CBD oil is thought to have a cumulative effect as it interacts with other systems in the body, specifically in its inhibition of neurons in the central nervous system, modulation of intracellular calcium, and general [anti-inflammatory effects](#).

As more clinical trials are conducted on the use of CBD oil and medical cannabis in general to treat Dravet syndrome and other forms of epilepsy, the mechanisms by which cannabidiol works to reduce seizure frequency will become clearer, and the stigma around cannabis will continue to disappear.

Best CBD Oils for Treating Dravet Syndrome Symptoms

When choosing the best CBD oil to treat symptoms of Dravet syndrome, one of the most important considerations is milligrams per bottle since recommended dosage will be based on a ratio of CBD mg to your child's body weight. Understanding how many drops of CBD oil are needed for the dose recommended by your pediatrician will make it clear if a product is worth purchasing. For example, a low-concentration bottle will be cheaper, but you may find that you need to use much more of it to reach an ideal dosage, while a high-mg bottle will cost more but last longer.

You will also have to decide between a full-spectrum CBD product or a CBD isolate. Full-spectrum CBD oil contains a wider range of cannabinoids, nutrients, essential oils, and fatty acids. Simply put, a full-spectrum CBD oil contains more of the compounds that naturally occur in the cannabis plant. A CBD isolate, on the other hand, contains only cannabidiol.

In general terms, a full-spectrum CBD oil product can offer whole plant benefits known as the "[entourage effect](#)" but when it comes to Dravet syndrome, it is worth noting that the

majority of studies, and the FDA approval of Epidiolex, are based on CBD isolates. For this reason, it may be prudent to stick with a CBD isolate.

Whenever possible, look for an organically grown product and only purchase from brands that regularly test their products through a third party laboratory and have the Certificates of Analysis to prove it.

For starters, browse the [CBD product providers we've reviewed](#), keeping an eye out for 4- and 5-badge brands.

While there is much left to learn about the possible benefits of CBD oil for Dravet syndrome, early indications are incredibly positive. If you are considering CBD oil for your child, speak to your pediatrician and together you can weigh your options and determine the best way forward.

If you found this article helpful you may also be interested in:

- [How to Talk to Your Doctor About CBD Oil](#)
- [CBD Oil for Inflammation: How it Works and What You Should Know](#)
- [CBD Oil for Epilepsy: How it Works and What You Should Know](#)
- [Is CBD a Schedule 1 Drug?](#)