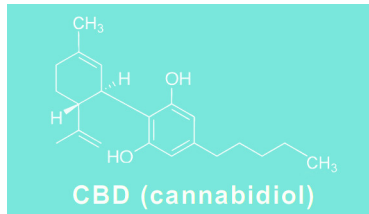


CBD Research



Abstract

CBD (cannabidiol) is perhaps the most popular cannabinoid in medical marijuana today. CBD is one of the main active chemicals present in cannabis products from oils, and extracts to supplements and tinctures.

Our research overviews the studied health benefits associated with CBD, how to get the most effective CBD treatments for medical use, how CBD is created and how CBD reacts with the endocannabinoid system.

CBD Science

CBD is a principal active ingredient (a “cannabinoid”) in marijuana. Although most people know about THC, the cannabinoid famous for its “stoned” high, the effects of CBD are just as important when it comes to real-world medical applications. To understand how cannabidiol affects the brain and body, it helps to understand cannabinoids as a entire subject.

CBD Research

Back in the early 1960’s, a group of Israeli researchers led by Dr. Raphael Mechoulam decided to conduct tests on marijuana to find out how it worked. At the time, the researchers found that morphine was the active substance in the plant opium and cocaine were the most addictive substance in cocoa leaves, but she still had no idea what caused the high effect (“stoned”) when someone smoked marijuana, for instance.

The first ingredient that they are isolated in the cannabis was CBD. THC would not be found by the research team until roughly 1 year later. Along with THC and other compounds in marijuana, CBD is classified as a cannabinoid.

Cannabinoids work with receptors in the brain (the endocannabinoid system) to create

different effects. For example, THC binds to CB1 and CB2 receptors that make people feel high, happy or sleepy. Although CBD does not bind well to influence indirectly taking one of these receptors to make stimulation of the body's own cannabinoids (the so-called endocannabinoids). It also works on non-cannabinoid receptor systems to create relaxation and kill pain.

Medical Benefits of CBD

In recent decades, laws have been passed for the legalization of medical marijuana (including CBD oil and concentrates) in certain places around the globe. If the medical use of cannabis continues to spread, anecdotal evidence about the effects show up accounting for a variety of disorders.

To get the right medication, it is important that patients understand the conditions that the CBD is effective in the treatment, as opposed to those who are better treated with THC. There are studies that show that CBD is useful for the treatment of diseases and disorders ranging from anxiety to epilepsy.

General Medical Applications for CBD

While cannabidiol is promising as a treatment for many medical conditions, it is not a panacea. To find out what conditions can actually treat the CBD, as well as those that can be effective, it helps to look at what the science says. Study after study has shown that CBD health benefits are far reaching, but not 100% of the data shows correlation. The compound is promising for applications in medical marijuana.

CBD an an Anti-inflammatory?

CBD has been investigated as an anti-inflammatory for conditions such as rheumatoid arthritis. In this disease, inflammation of the body, causing pain and swelling. In studies on mice showed CBD immunosuppressive and anti-inflammatory properties, stopping the progression of the disease.

CBD as a Sedative?

Studies also supported through the use of CBD as an anti-anxiety medication. The researchers found that CBD reduced stress-induced ulcers in mice. In a study on reducing human CBD worked just as well as medications such as diazepam for anxiety.

CBD as an Antipsychotic?

Although human clinical trials are underway, previous studies have shown promise, CBD may be an effective antipsychotic drug for people with disorders such as schizophrenia. Researchers have found no adverse side effects associated with high doses of CBD used in conventional medical marijuana products.

CBD as Antidepressants?

Anandamide, also known as "the blessing molecule" is a chemical which occurs naturally in the brain. It binds with the cannabinoid receptors, and acts as a mood-booster. CBD slow down the breakdown of anandamide brains, so if a natural antidepressant.

CBD for Cancer?

In addition to all this, preclinical studies showed that cannabidiol can fight cancer, at least in a laboratory setting. In some cancers, it kills the cells ceased to grow, and prevents them from developing new blood vessels. More research is needed to see how this can be translated into medical treatments for people battling cancer.

Researchers are working on a series of tests to determine whether people can use CBD for everything from chronic pain struggle for opioid dependence. Although many studies show promise, it is important for people to consult their doctor before changing their medication. It is also important to studies of CBD health benefits in the context in terms of concentration, dose and application of methods that are used, and if the tests are carried out on humans.

CBD for Dravet Syndrome?

One of the most high-profile benefits of CBD for children with a severe form of epilepsy known as Dravet's syndrome. The disease begins in childhood causes frequent and severe attacks can be debilitating and even deadly.

In recent years, parents and doctors are beginning to explore the possibilities CBD benefits for children with Dravet's syndrome. Several years ago, Dr. Sanjay Gupta highlighted the story of Charlotte Figi in his four-part documentary series *Weed*. Her family had everything from diet, acupuncture, and hazardous substances tried to stop Charlotte's devastating attack, when they heard about the high CBD cannabis for epilepsy.

While getting marijuana to treat their little girl was a tough fight when they did, the improvement of the condition of Charlotte was dramatic. Her story has created an explosive effect on cannabis community, and high CBD cannabis strain that changed her life

now bears her name: Charlotte's Web.

Since then, a growing number of parents similar success using CBD (or a combination of THC and CBD) for the condition of their children found. The studies because these results are confirmed this year. A test in 2017 cannabidiol drug resistant seizures, it was found that the frequency of attacks of all kinds reduced.

CBD-based Drugs

Based on these preliminary studies, pharmaceutical companies began to take a hard look at the potential of CBD as a treatment for epilepsy. Their goal was to take advantage of CBD in an isolated and concentrated form. In June 2018 the US Food and Drug Administration approved Epidiolex manufactured by G.W. Pharmaceuticals is in children aged two years and older epilepsy. Epidiolex vegetable CBD Pharmaceutical - substantially purified, prescription CBD. FDA approved that the approval was Epidiolex and not the CBD in general.

Later that year, the Drug Enforcement Agency Epidiolex move from a Schedule I drug (a category of drugs like cocaine and heroin included) to V, the least restrictive category of controlled substances Plan. This paved the way for G.W. to begin selling Epidiolex while drawing criticism from cannabis advocates because CBD itself classified as a Schedule I substance back. Although authorities a campaign against the sale of the CBD and other products that are not started with the oil industry, marijuana advocates want to see the connection rearranged along with the pharmaceutical counterparts.

CBD also plays an important role in Sativex (Sativex) in the oral spray for muscle spasticity and neuropathic pain in patients with MS, and approved cancer pain. Sativex contains a 1:1 THC to CBD mix. Many patients report that the combination of the two cannabinoids provides significant relief of their symptoms. They also like that they can better serve their dose by oral spray.

CBD in Marijuana vs Hemp

What is the difference between CBD marijuana versus CBD hemp? The answer is that high CBD marijuana strains can contain various amounts of THC, whereas hemp contains almost none of the psychoactive substance.

For years, many thought only of marijuana as a way to get high, but cannabis growers work to create miracles with plant genetics potent non-intoxicating drugs. Marijuana selectively bred to contain higher CBD and THC late. This provides greater flexibility for medical or recreational users who hope to benefit from the effects of CBD, while avoiding the high effects of THC.

While high CBD strains such as Charlotte's Web has been a game-changer for children

with Dravet syndrome as the levels of THC in a strain are no more than 0.3%, it is considered illegal by US federal law and subject to harsh penalties in states where marijuana is not legal. For people who live in these areas focuses hemp (non-psychoactive form of cannabis), so that consumers reap the benefits of CBD.

Common CBD Ingestion Methods

What is the best way to use the CBD? People use different methods to consume cannabidiol, but before you begin, it's important to understand an important concept, decarboxylation.

Decarboxylation

Although it sounds like a complex science-term decarboxylation simply means warming marijuana long enough to activate the cannabinoids within. In its raw form, cannabis contains CBDA or cannabidiolic acid. When CBDA is heated to the boiling point, it is transformed into cannabidiol (CBD).

Cannabis flower material can be broken up into small pieces and heated in order to activate the CBD.

Smoking

Smoking cannabis continues to be a main form of medical use by MMJ patients across the United States. While inhaling the smoke can pose certain health risks, smoking marijuana high CBD strains are a simple and effective way to take advantage of the benefits CBD.

Vaping

Especially for medical users who like CBD, vaping occupies in a cleaner, healthier way than smoking, vaporization offers an excellent alternative. Vaporizers heat cannabis material by one of two methods: conduction or convection. By conduction, is the meal (or wax / oil) is placed directly against a heat source. Convection heating goes around the CBD-rich material with hot air. The evaporation of the conduit for heating the material for dispensing vapor, and not to the point of combustion that gives strong smoke.

Oils

CBD oils have become increasingly popular in recent years. Consuming oil one of the

easiest ways to take advantage of the health benefits of CBD in a concentrated form. To get the oil, manufacturers use a solvent (often somewhat as ethanol) to be extracted from the plant material to the CBD and other cannabinoids. After evaporation of the solvent, they remain with the CBD-rich oil.

Depending on what the factory's CBD oil comes from (marijuana or hemp?), the THC content may be high or almost no THC at all. It is important to note that some CBD oil is meant to be taken orally, while others are intended to be vaped.

CBD Oil

One of the most common ways to consume CBD is by using cannabidiol CBD oil.

CBD Topicals

Due to the cannabinoid receptors not only in the brain but all throughout the body, topical products are another way to take advantage of the health effects of cannabidiol. Studies have shown that topical cannabidiol is helpful in reducing pain and inflammation of arthritis, then rub can help CBD-rich oils and creams.

CBD Precautions

CBD While studies have shown that it is well tolerated and safe, it should be treated like any other medication or supplement. This means that people with health consult with their doctor before CBD (either in whole plant marijuana or any form). This includes:

- Women who are pregnant / breast feeding:

Currently there is not enough reliable information to determine whether CBD a risk to a fetus or a child breast feeding.

- Medications

Because CBD interacts with the body cytochrome P-450 system, any medication may cause possible interactions.

Why combine CBD and THC?

While CBD is a cannabinoid useful in its own right, it is even more useful in combination with THC. This is due to the way in which the two compounds act as coupled with each other.

People use THC to treat many different diseases and conditions. Cancer patients, for example, have found that THC can help reduce nausea and vomiting experienced by a strong dose chemotherapy. For some, but the psychoactive effects of THC are too

strong. Many medical marijuana patients do not want to feel high but rather to feel the effects of working medication.

When CBD is added with THC together, the effects of THC seem to mellow out and progress into a more body-centric feeling. This feature of "the entourage effect" allows people to use THC substances without any of the unwanted side effects.

THC may also help CBD perform better in the treatment of certain disorders. Parents of children with Dravet syndrome have discovered (a severe form of epilepsy in children) that can help high doses of CBD, where no other substance can. For some children it is a mixture of THC and CBD get the best results.

CBD FAQ

What is CBD?

Alias cannabidiol, CBD is one of the cannabinoids (or active ingredients) in marijuana. Unlike THC (another primary cannabinoid in marijuana), people do not get too high from CBD. CBD creates a connection with CB2 receptors in the endocannabinoid system of brain.

CBD can get me high?

Not high. Unlike THC found in marijuana, the CBD is non-psychoactive. This is one reason why the use of medical patients may prove to be easier in some regards, unlike many "high" drugs CBD's benefits greatly outweigh the minor side effects.

Will I feel any effects from CBD?

At a low dose, CBD side effects are not noticeable. Higher doses can relax or cause slight drowsiness. Very high doses of cannabidiol may light up when some people in the head or create a little sense, which is why it is best to start with lower doses at first.

CBD will make me fail a drug test?

Since drug tests are used to look for psychoactive THC (tetrahydrocannabinol) and CBD not (cannabinol), the CBD does not cause you to fail a drug test. But if you have a CBD oil to take small amounts of THC in it, THC can be displayed on the test.

How is the that possible? CBD oils made from plants marijuana (commonly found in

states where marijuana legally) may contain small amounts of THC and CBD oil made from hemp plants have nearly no THC.

Can I overdose on CBD oil?

There has never been a reported fatal overdose due to using CBD oil. A 2011 study showed that participants CBD doses withstand up to 1500 mg per day. If the higher dose, however, is moving, dizziness, and other unwanted side effects.

Can I vape CBD oil?

It all depends. CBD edible oils should never vaped as carrier oils such as butter, olive oil and coconut oil, which can cause disease include aspiration. However, the CBD fluids designed for use in an vape device are suitable.

CBD Side Effects

As CBD has gained more attention to people who want to know more about getting the effects. CBD has a high as isolated and is consumed as a concentrate (in an oil, for example)? As with any drug, it is important to know what to expect before consuming high doses of CBD oil or any kind of concentrate.

CBD possible effects include:

relaxation
drowsiness
dizziness
dry mouth
a drop in blood pressure
diarrhea
changes in appetite

CBD - How does it feel?

CBD does not create a high effect similar to the THC-rich marijuana strains popular in medical marijuana shops. Instead CBD often leaves users feeling clear-headed. Many people report feeling an overall sense of relaxation and well-being when they take it alone or use a high-CBD strain of cannabis.

Because everybody's brains, body and metabolism are different, there is no guarantee what the effects of cannabidiol on your body will be. Doses up to 600 mg can be consid-

ered a good place to start, and studies show that they are generally well tolerated. It is rare to hear about the negative side effects of CBD, but as with any medication, it is best to start with a lower dose and give it time to evaluate the effects. Generally, people find that the benefits of CBD outweigh the negative effects. If anyone has a large enough dose to get a "high CBD stone", it would probably end up feeling light headed and sleepy.

How does CBD interact with other medications?

As cannabidiol causes a decrease in blood pressure, people with low blood pressure or taking blood pressure medications should talk with their doctor about using CBD.

CBD interacts with the body cytochrome P-450 system (an enzyme system of the liver), which means that it can increase the level of certain drugs in the blood stream. Another substance that interacts with grapefruit this system, so anyone taking a medication that interacts with grapefruit should be aware of the possible interactions cannabidiol too.

A list of some (but not all) medications that uses CYP450 system:

- antiarrhythmics
- antibiotics
- anesthetics
- Angiotensin II receptor blockers
- antipsychotics
- antidepressants
- anticonvulsants
- antihistamines
- benzodiazepines
- beta blockers
- calcium channel blockers
- HIV antiviral agents
- HMG CoA reductase
- immunomodulators
- NSAIDs
- oral antidiabetics
- PPI
- prokinetic
- steroids
- sulfonylureas

Note: It is always best for individuals to talk to their doctor before taking any supplements CBD or in combination with any medication.

CBD and Entourage Effect

Mechoulam and his research team noted that although each cannabinoid has its function, perhaps they all seem to work better together. CBD has none of the intoxicating effects of THC. When the CBD and THC are in a 2:1 ratio, the combination of cannabinoid effects of the human endocannabinoid system changes from a “speedy high” to a “body stone”, means that patients can use to suppress their THC nausea or to stimulate their appetite without feeling drunk, experiencing a rapid heartbeat, or dealing with anxiety. Mechoulam called this phenomenon the "entourage effect" and it is one reason why medical marijuana advocates are pushing hard to plant lawful use of the entire collection. Even minor cannabinoids as CBC and THCV may have no noticeable effect, they work in a subtle way to increase their cannabinoid siblings.

CBD Research Conclusions

The benefits of CBD are more than the world expected. The rise in producers of hemp and marijuana growers explains the medical awareness in CBD medications being suitable for a new future in medical cannabis.

The latest studies define the trend of research supporting CBD as being an effective medication. With the expansion of legalization and further medical cannabis scientists will soon be able to unlock more research in the endocannabinoid system regarding CBD.

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Go back to [Endotext.com](https://www.endotext.com)