CBD Hemp Oil 101

Your Absolute Beginner’s Guide To CBD Hemp Oil
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Table Of Contents

Introduction 7

What Is CBD? 8

The Summary: 8
The Details: 8

CBD Has Many Benefits for Your Mind and Body 8

CBDs physiological benefits include: 9

CBDs psychological benefits include: 9

CBD will not get you high because it is – unlike THC – not psychoactive 9

CBD Is Legal In Some Countries and Illegal in Others 9

CBD is short for Cannabidiol. 10

CBD Is Found in CBD Hemp Oil At Various Concentrations and Forms 10

CBD Hemp Oil and “Hemp Oil” are two different things 10

References 10

Health Benefits of CBD 12

CBD for Neurodegenerative Disorders 12
CBD For Inflammation 12
CBD For Multiple Sclerosis 13
CBD For Schizophrenia 13
CBD For Epileptic Seizures 13
CBD For Anxiety 13
CBD For Pain 13
CBD For Rheumatoid Arthritis 14
CBD For Nausea 14
CBD For Diabetes 14
CBD For Heart Problems 14
CBD For Depression 14
CBD For Bowel Diseases 15
CBD For Bacteria 15
CBD For Mad Cow Disease 15
CBD For Bones 15
CBD For Dyskinesia 15
CBD For Quitting Smoking 15
CBD For Insomnia 16
CBD For Acne 16
CBD For Psoriasis 16
CBD Side Effects
Interference with other drugs
Causes dry mouth
Increased tremor in Parkinson’s patients
Instantly lowers blood pressure
Light headedness/ Vertigo
Drowsiness
Panic attacks
References

The Difference Between CBD And THC
Key Differences
Interaction with the body
The “High” feeling
Medical applications
Sleep patterns
Anti-psychotic and anxiety benefits
Legality
Sexual Experiences
Differences in edible marijuana
Conclusion
References

CBD For Epilepsy
Causes of Epilepsy
Quick Facts
Types of Epilepsy Syndromes
Effects of Epilepsy
Current Treatments
CBD as an Alternative Treatment
Politics and Legalities
Conclusion
References

CBD For Depression
Causes of Depression
Symptoms of Depression
Current Mode of Treatment
Treatment Using CBD
Why CBD is a Better Option

References

CBD For Epilepsy
Causes of Epilepsy
Quick Facts
Types of Epilepsy Syndromes
Effects of Epilepsy
Current Treatments
CBD as an Alternative Treatment
Politics and Legalities
Conclusion
References

CBD For Depression
Causes of Depression
Symptoms of Depression
Current Mode of Treatment
Treatment Using CBD
Why CBD is a Better Option

References
Introduction

Thank you for downloading this book and welcome to the wonderful world of Cannabidiol (CBD)!

More and more people want to know how to use CBD as a way to feel better, relax and manage physical ailments. In this article I would like to share with you the facts you have to know about CBD.

Consider this your CBD 101.

With best wishes,

[Signature]
What Is CBD?

The Summary:

CBD – which is short for "Cannabidiol" – happens to be one of the 113 chemical compounds called "Phytocannabinoids" that can be extracted from the Cannabis plant.

As a dietary supplement it has many benefits beyond its nutritional value: CBD has helped people deal with and alleviate anxiety, depression, sleep deprivation, substance abuse, chronic pain, epilepsy, multiple sclerosis, and much more.

You can take CBD as CBD Hemp oil in the form of drops, pills, spray, chewing-gum or e-liquid. Basically, you can eat it, vape it or chew it.

You may say “If CBD is extracted from the Cannabis plant, will it get me high?"

The answer is short and simple: “No. CBD will not get you high."

“How can that be?” you may ask. Let me explain. Although CBD is an extract of the Cannabis plant only its “sister” phytocannabinoid THC (Tetrahydrocannabinol) is known for its psychotropic effect on the human mind. THC makes you high.

Although derived from Cannabis, CBD can legally be purchased in many countries. On the other hand, THC is heavily regulated in the form of medical Marijuana and even still illegal altogether in many countries.

The Details:

Now, after this really short introduction, let’s dive a bit deeper into CBD. Get ready for a handful of information.

CBD Has Many Benefits for Your Mind and Body

In the 2013 article titled “Cannabidiol for neurodegenerative disorders : important new clinical applications for this phytocannabinoid?” [1], Javier Fernández-Ruiz, Onintza Sagredo, M Ruth Pazos, Concepción García, Roger Pertwee, Raphael Mechoulam, and José Martínez-Orgado have found that CBD can act as an…

“[...] anti-inflammatory, anticonvulsant, anti-oxidant, anti-emetic, anxiolytic and antipsychotic agent, and is therefore a potential medicine for the treatment of neuroinflammation, epilepsy, oxidative injury, vomiting and nausea, anxiety and schizophrenia [..."]"
CBDs physiological benefits include:

- Anti-inflammatory properties helping with Multiple Sclerosis (MS) [2]
- Symptom-relieving properties for managing pain [3]
- Anticonvulsant properties helping with epilepsy [4] [5]
- Relaxation properties helping with sleep disorders [6]

CBDs psychological benefits include:

- Antipsychotic properties helping with anxiety [9]
- Antipsychotic properties helping with depression [10]
- Antipsychotic properties helping with schizophrenia [11] [12]

Please take into account that the research into these properties has been conducted on animals but the studies do point to repeatable, scientific observation of the benefits of CBD.

CBD will not get you high because it is – unlike THC – not psychoactive

Next to CBD, you’ve probably heard of another more (in)-famous cannabinoid called “THC.” THC – or Tetrahydrocannabinol – is the compound that creates the “High” when Marijuana is ingested or smoked. THC is therefore what makes Marijuana a drug. THC has a psychoactive effect on the brain. Getting high on THC often includes a heightened sense of euphoria, you start to see things differently. Your mood may get better or worse, depending on your psychological makeup. Because of this effect on the human nervous system, products that contain THC are highly regulated and, unless meant to be prescribed and used as medicine (usually referred to as “Medical Marijuana”), these products are illegal to cultivate, possess and to sell in most countries.

The good news is that, in contrast to THC, CBD is absolutely not psychoactive [15]. CBD will not get you high. In fact, CBD is even said to act against a THC-induced “High” and can help you get into a normal state of mind faster. Most often, CBD is extracted from Cannabis plants that were cultivated to produce a lot of CBD and only residual amounts (if any) of THC.

CBD Is Legal In Some Countries and Illegal in Others

Even though CBD has many benefits, it is still illegal in many countries because it can be a Marijuana-based (THC-high) extract. It is a Schedule I drug in the United States [13] and a Schedule II drug in Canada [14]. CBD is legal to purchase and consume in Germany for example.

Before buying CBD, please make sure you have read and understand your country’s legal requirements.
CBD is short for Cannabidiol.

Cannabidiol is one of 113 known so-called cannabinoids that can be extracted from the Cannabis plant. Cannabinoids, such as CBD, are chemical compounds that act on our cells' cannabinoid receptors. These receptors in our cells control many physiological processes such as our appetite, our experience of (or lack thereof) pain, our overall mood and our ability to remember things. Now, because Cannabis is a plant, those 113 different cannabinoids are also called “Phytocannabinoids” because they're (Phyto) plant-based. Other studied Phytocannabinoids you will find THC, CBN, CBC, CBG, CBL, CBV and many more.

CBD Is Found in CBD Hemp Oil At Various Concentrations and Forms

As a nutritional supplement, CBD can easily be ingested. The most common way to purchase and take CBD is in its oil form. You can also, depending on your taste, buy sprays, chewing gums and e-liquid to ingest CBD. Generally, these products range in their concentration of CBD to serving. Oils have concentrations that range from 5% to up to 40%. Depending on the amount of CBD per serving, the prices go up. The more CBD, the more expensive the product.

Besides CBD, these products also often contain Omega-3 fatty acids, Terpenes, Vitamins, Chlorophyll, Amino Acids, among other phytocannabinoids like cannabichromene (CBD), cannabigerol (CBG), cannabinoil (CBN) and cannabidivarin (CBCV).

CBD Hemp Oil and “Hemp Oil” are two different things

Here is another common misconception that you should know about. Oil that contains CBD in various concentration and straight up Hemp Oil are two different things. Hemp Oil is similar to, let’s say, Olive Oil. You can eat Hemp Oil, cook with it mostly for its nutritional value and taste. Hemp Oil is made only from the seeds of hemp and contains neither CBD nor THC or any other cannabinoids.

CBD oil is made from all parts of the plant. Usually the full plant is used to extract oil that contains CBD: The flowers, leaves, stalks are all processed. For CBD Oil, plants are used that are high in CBD and very low in THC. This way, CBD oil can be sold legally in many countries. As an overview, I hope this has helped you get an idea what CBD is and is not. I hope you have also learned what CBD can and cannot do for you as a dietary supplement and medicine.

References

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• [15] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248
Health Benefits of CBD

CBD for Neurodegenerative Disorders

CBD has the power to treat problems such as epilepsy, neuroinflammation, oxidative injury, schizophrenia, vomiting, and nausea.

It acts an anti-inflammatory, anti-convulsant, anti-oxidant, antiemetic, anxiolytic and antipsychotic agent. Intense preclinical research studies have been conducted with blends of anti-inflammatory and anti-oxidant agents to test to see whether the neuroprotective ability of CBD will help in the fighting of neurodegenerative diseases.

Disease-modifying therapy with the use of CBD has been tested with Delta 9 tetrahydrocannabinol (THC) for Huntington’s disease. CB (1) and CB (2) receptors of Endocannabinoid systems do not possess the properties of neuroprotection that CBD does and only CB (2) receptor has been linked with a pathological condition.

The inhibitory effect of CBD on the inactivation of the endocannabinoid leads the molecules of the endogenous substance to act on the receptors of cannabinoid. The serotonin and adenosine of metabotropic receptors are activated by the CBD either through direct or indirect methods, provided the potential of CBD is not restricted to endocannabinoid. CBD can act on nuclear receptors belonging to PPAR group for pain relief.

CBD For Inflammation

CBD is a therapeutic agent and is useful in dealing with inflammation and disorders related to pain. With the use of CBD, neutrophils are restricted from growing further and mobilizing around the human body. The proteins of inflammation are decreased with the use of CBD. From the rat model for asthma, it can be seen that CBD decreases the Th1 and Th2 in the body. Inflammatory cytokines like Th1 and Th2 are reduced with the use of CBD. CBD also helps to reduce Th17, which is linked to autoimmune disorders in humans.

CBD For Multiple Sclerosis

A blend of CBD and THC forms Sativex. This combination is effective in the treatment of pain, sleep disorders, tight muscles and urinary problem of patients with multiple sclerosis.
CBD For Schizophrenia

The Schizophrenic negative cognitive symptoms are affected positively due to the usage of CBD. This property makes the treatment of psychosis easier even though at present its effect on the brain or course of action is still unknown. The pharmacological effect has lesser side effects than other antipsychotic drugs despite having similar properties.

CBD For Epileptic Seizures

It is a proven theory, that CBD is a prominent therapy adopted for treatment-resistant epilepsy. According to a study, 84% of parents stated that epilepsy seizures had reduced significantly in their children after usage of CBD. It is also proved that those children were then more alert, had a better mood and proper and improved sleep pattern. The side effects are minor, i.e. drowsiness and fatigue.

After following the treatment of using pure CBD oil for three months, the results indicated that 39% of children had decreased seizure attacks.

7 out of 8 patients who take this form of therapy for treatment-resistant epilepsy have improved significantly. However, they are required to take cannabidiol regularly for over 4 to 5 months.

CBD For Anxiety

The anxiety of an average healthy person, as well as the anxiety of person with social anxiety disorder, can be drastically reduced with the help of CBD. Anxiety caused by public speaking can also be decreased with the help of CBD. The anxiety triggered with the usage of THC is treated by CBD as well. The properties of CBD can help patients with panic disorder, obsessive-compulsive disorder and post-traumatic stress disorder improve in their respective treatment methods.

CBD For Pain

According to the latest studies, CBD is now known as a new set of medication for relieving chronic pain in the body. Neuropathic problems and inflammation are treated with the help CBD and have been proven to reduce chronic pain. Postoperative pain is treated with a combination of Cannabidiol and THC; this helps relieve the pain of the patient and leads to a positive mental state.
CBD For Rheumatoid Arthritis

The pain in joints and the swelling around the joints can be reduced because of the anti-inflammatory agent of CBD. Another prime motive is to reduce the destruction of joints and progression of the disease. It has been proven, that administration of CBD protects the joints against damage and progression.

Sativex administration model, which illustrated over a period of five weeks, helps one understand improvement in the patient about pain in movement and at rest, as well as the inflammation and corresponding improvement in sleep.

CBD For Nausea

The research conducted on rats proved that CBD could treat and prevent nausea and vomiting. A low dose of CBD reduces nausea, and a high dose of CBD either increases nausea or shows no change in the animal models. THC helps to prevent nausea while building an appetite.

CBD For Diabetes

Research based on the use of marijuana on 4657 adults showed that insulin requirement is reduced by 16% and patients lose weight. The level of diabetes is decreased from 86% in non-treated mice to 30% for mice treated with CBD.

CBD For Heart Problems

According to researchers, CBD combats against heart diseases such as arterial problems and blood vessel damage. These results are obtained from the animal models used for research. CBD also protects the heart against larger infarct size, irregular heart rate, and rhythms. It reduces blood pressure and pulse rate caused by anxiety as well.

CBD For Depression

Research on mice illustrates that CBD works as an antidepressant as well. It is also stated that it is faster when compared to tricyclic medication imipramine. Provided that one does not get addicted, it is better than other drugs in the market.

CBD For Bowel Diseases

CBD helps prevent Inflammatory Bowel Disease (IBD). These results are obtained from the research conducted on colitis on animals. CBD contributes to combat abdominal pain, diarrhea, and lesser appetite.
CBD For Bacteria

The anti-microbial agent present in CBD has shown efficacy against Methicillin-Resistant Staphylococcus Aureus (MRSA). This particular bacterium can make the treatment of other infections difficult.

CBD For Mad Cow Disease

Prion is the protein, which could cause fatal, life-threatening diseases, such as mad cow disease. Using CBD can prevent its development. The research conducted on mice shows that prion is controlled with the supplement of Cannabidiol and this increased the lifespan of the diseased mice.

CBD For Bones

CBD has properties to heal bones, particularly when the bones are broken or damaged. A study on rodents has proved that CBD heals broken bones faster than other drugs.

CBD For Dyskinesia

The involuntary movements are reduced with the help of CBD. The study on mice demonstrated that CBD is efficient in the decrease of such movements. With the use of CBD treatment, less involuntary markers are produced. The enzymes causing this disease are reduced as well.

CBD For Quitting Smoking

Cigarette addiction is a habit, which is quite difficult to overcome. But, CBD can fight against this problem as well. According to a double blind research study that was conducted, around 24 smokers were randomly given an inhaler of CBD or a placebo for the study. They were asked to take a puff whenever they had the urge to smoke during the days of the research. After a week, the placebo smokers showed no improvement whereas the inhalers of CBD showed a drastic change. In the inhalers of CBD, there was a 40% downfall in their smoking. This study demonstrated that cigarette intake was reduced gradually, without an increased desire for nicotine. Hence, CBD can be used to prevent smoking.

CBD For Insomnia

The side effect of CBD is tiredness, but that is considered to be an advantage by those who are struggling to get their sleeping pattern right. This natural herb driven chemical can give one sound sleep and prevent one from getting addicted to sleep pills.
CBD For Acne
The sebaceous glands are treated with Cannabidiol as it has been proven that CBD has properties of sebostatic and anti-inflammation and hence deal with diseases such as lipid synthesis and proliferation of sebaceous gland.

CBD For Psoriasis
The growth of the skin cells is brought into control by the CBD, which helps to treat psoriasis.
CBD Side Effects

CBD or Cannabidiol is a chemical that is predominantly found in Marijuana plants. It is a naturally occurring chemical that imparts the body several health benefits.

CBD makes for 40% of the plant’s extract and happens to be one of 100 active compounds found in the plant. Research is on to determine the chemical’s actual impact on the body and how it manages to provide so many health benefits.

Some of the illnesses that CBD provides relief from include acne, PTSD and Insomnia. It is also used in the treatment of Schizophrenia, Multiple sclerosis and Crohn’s disease.

CBD is extracted directly from cannabis plants and is administered in the form of oil, capsules, powder, etc. The recommended dose of CBD ranges between 250 to 500 mg per day depending on the person’s age, body type, etc.

CBD is an active chemical and should only be administered under a doctor’s supervision. This is especially important if the person consuming it suffers from medical conditions.

Although CBD is widely regarded as a safe drug to consume without too many side effects, research has shown that there can be a few that one needs to be aware of before taking up the drug.

In this article, we look at some of the common side effects associated with CBD, to prepare you for what to expect, once you take up the drug.

Interference with other drugs

One of the first and foremost side effects of CBD is its tendency to interfere with other drugs. As per studies, high doses of CBD can deactivate cytochrome P450 enzymes that are responsible for metabolizing many compounds such as THC, better known as Tetrahydrocannabinol. This chemical is primarily responsible for generating the famous “high” associated with cannabis. By slowing down this enzyme, the effect of prescription drugs is increased owing to a reduction in its metabolic activity. Since your body will not be able to metabolize the drug normally, it will end up accumulating inside your body.

Apart from this, CBD also interacts with alcohol and anti-epileptic drugs. It can increase the potency of both and make their effect stronger.

In a way, this should not be considered a side effect of CBD, as it is part of a natural process. CBD is designed to render THC inactive so that the person consuming it does not get a high
from it. This ensures that patients have the chance to consume cannabis to derive the benefits associated with CBD.

Causes dry mouth

Another disadvantage associated with CBD is that it can lead to a dry mouth. This occurs due to an inhibition of salivary glands. Although it might not sound like a significant reaction, it can result in great discomfort and a choking sensation.

According to research conducted on cannabis consumers in 1986, those who smoked on a regular basis experienced extreme drying of the mouth. This condition is better known as Xerostomia among scientists and is a leading side effect of CBD.

As per research studies, the Endocannabinoid found in cannabis binds with the cannabinoid receptor glands found inside the mouth and blocks the activity of saliva producing compounds such as norepinephrine and methacholine that causes a reduction in the amount of saliva that is secreted inside the mouth. This leads to a cottonmouth feeling.

Saliva producing chemicals are part of the parasympathetic nervous system, which is primarily responsible for conducting food related activities such as increasing appetite, breaking down food, etc. A reduction in the same can lead to digestive issues and an inability to enjoy the food.

Dryness of mouth can also make it difficult for you to concentrate on your activities. You will constantly feel parched and feel the need to drink water despite being full.

If you are experiencing dry mouth owing to the consumption of CBD, then consider chewing some gum as that can keep your mouth from going dry. You can also consume foods that require a fair amount of chewing such as beef jerky.

Drink water every 30 minutes so that you remain hydrated and the issue is mitigated to some extent.

Increased tremor in Parkinson’s patients

As per studies conducted on patients who have Parkinson’s disease, over-consumption of CBD increased the intensity of tremors.

CBD is prescribed as a solution to Parkinson’s disease. According to research studies, those patients who were administered 300 mg of the drug showed a significant difference in the symptoms associated with Parkinson’s. Although the chemical did not do anything for the disease itself, it did manage to slow down the side effects, as it slows down the effects of neurodegenerative chemicals that cause Parkinson’s.
However, those who were given higher doses of the chemical reported experiencing a significant increase in tremors and shaking.

Given its positive impact on the body, it would be advisable to continue consumption of CBD in the recommended doses to inhibit the symptoms associated with Parkinson’s. But care must be taken to limit the consumption to the recommended dose and not over consume the chemical in hopes of increasing its effects on the mind.

**Instantly lowers blood pressure**

According to recent studies, consuming CBD in doses of 600 mg per day can immediately reduce the level of blood pressure in a healthy human.

Researchers studied many parameters in patients such as blood pressure, stroke volume and skin blood blow and found that CBD almost instantaneously reduces these thereby reducing blood pressure.

Systolic blood pressure represents the pressure that is a part of a person’s blood vessels during heartbeats. Those who have a pressure of 140 mmHg are considered as high blood pressure patients as the standard value lies at 120 mmHg.

CBD reduces systolic blood pressure by about 6mmHg when a person is resting, 5 mmHg just before and after stress and 6 mmHg during cold stress.

If you are feeling lightheaded after consuming CBD and are unable to go through your routine, then it is best to stop consuming it and consult your physician immediately.

Remember that you cannot take a high dose of CBD if you suffer from high blood pressure to lower the pressure.

**Light headedness/ Vertigo**

Light-headedness will be a direct consequence of a drop-in blood pressure levels in your body. As discussed earlier, consuming 600 mg of cannabis per day can instantly lead to a drop-in blood pressure.

If you are feeling light headed then sit down immediately and stop engaging in any heavy-duty activity. Consume lots of water after adding a little salt to it. Lie down if you need to for some time. You can also consume a cup of coffee or tea, as it will instantaneously up your BP level.

In some cases, medical Vertigo might set in and lead to dizziness. It is an issue related to the inner ear and can often cause head spins. If you experience any such thing, then rush to your doctor immediately.
Some patients have also complained about experiencing nausea after consuming CBD. This can be remedied by drinking herbal teas containing herbs such as basil and chamomile.

On the bright side, you might not faint despite having low blood pressure and light-headedness, as CBD keeps your mind awake and alert and so, chances of fainting are rare.

**Drowsiness**

Another side effect of CBD is that it can induce drowsiness. Higher doses of CBD can lead to a feeling of drowsiness and induce sleep.

According to study reports, men with an average age of 24 were administered 500 mg of CBD per day. They reported feeling drowsier and clocked more sleep than before. CBD is therefore used as an effective drug to combat insomnia and encourage deep sleep. Just 250 to 500 mg of the drug can reverse sleep disorders and induce sound sleep.

It is therefore advisable to not take on activities such as driving and operating heavy machinery when you are on CBD.

**Panic attacks**

One of the uses of CBD is that it serves as an anti-stress medicine. CBD inhibits the role of cortisol and encourages dopamine release. However, too much CBD only leads to panic and anxiety attacks. As per studies, those who smoked too much cannabis suffered from anxiety attacks and often felt panicked. They reacted adversely during stressful situations and showed symptoms of high blood pressure, sweating, restlessness and displayed emotional reactions.

It is therefore essential to stick to the recommended dose and not over consume CBD to prevent panic and anxiety attacks.

As you can see, there can be a few side effects associated with CBD consumption. Apart from these, some research studies claim that it can also exacerbate asthma and produce skin rashes in certain people. However, do not worry as these are minor side effects and will not lead to any significant health issues. If you wish to be doubly sure, then consult your physician before taking up CBD oil to check whether it can interact with any medications that you are on or produce any of the other side effects.

**References**

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The Difference Between CBD And THC

The well-known marijuana herb is labeled criminal in many places, but it can actually provide unmatched relief for various ailments. Despite all its diverse medicinal effects, there are still many roadblocks and negative opinions in terms of appreciating how cannabis consumption can be healthy for consumers.

There are two active ingredients that are found in the marijuana herb (cannabis sativa). They are CBD (Cannabidiol) and THC (Tetrahydrocannabinol). This article takes a look at some of the similarities and differences between the two with regard to how these cannabis compounds interact with the body and the brain.

Both CBD and THC are important terms that all medical marijuana patients need to know about. These two are categorized as cannabinoids, which are the main chemical compounds contained in the cannabis plant. Cannabinoids work their beneficial magic to provide relief for a wide range of symptoms like nausea, pain, inflammation, and anxiety.

But that is where the similarities end.

The general differences between these two cannabinoids are seen in the main effects that they produce in the body. That high feeling experienced with marijuana intake is caused by THC, which is the primary psychoactive component. It helps modulate eating and sleeping habits and also to reduce pain and inflammation.

CBD, on the other hand, lacks the psychoactive effect of THC and is also found in greater quantities in cannabis. The lack of a high after consuming CBD makes it suitable for widespread medical applications like dealing with depression, schizophrenia and the adverse effects of chemotherapy.

Key Differences

As mentioned above, cannabidiol and tetrahydrocannabinol are some of the cannabinoids that naturally exist in the cannabis sativa plant. The main differences between these two cannabinoids come from how they cause the body to react, with both causing unique reactions.

Let’s look at the other key differences between these CBD and THC below:

Interaction with the body

One thing about cannabinoids is that they have a huge impact on the endocannabinoid system, particularly the central nervous system and the brain. However, CBD and THC interact very differently with these regions and their corresponding receptors. In fact, while CBD has a hard
time binding to the cannabinoid 1 receptors, THC sticks very readily and is activated easily. This explains why THC has a stronger stimulating effect on the body.

THC mimics the pleasure molecule known as anandamide that is naturally found in the body. Various animal studies show that anandamide increases appetite by enhancing the pleasure linked to food consumption as well as playing a role in pain and memory. The THC cannabinoid closely mimics the anandamide key, thus activating the CB1 receptors and producing the same pleasurable feelings.

By contrast, CBD does not fit well with the body’s CB1 receptors. Instead of working to directly activate the CB1 receptors, it suppresses the ability of THC to stimulate CB1 receptors. Simply put, while THC works to stimulate the CB1 receptors, CBD offers a form of modulating effect on THC, thus minimizing its overall psychoactive effects.

The “High” feeling
That distinct high that also includes a feeling of general relaxation after consuming cannabis is caused by THC. It achieves this psychoactive effect by imitating the work of the anandamide neurotransmitter, which affects your eating and sleeping habits. This means that those interested in experiencing the recreational effects of marijuana should go for strains with higher THC levels.

Even though CBD is non-psychoactive, it can be combined with THC in a good ratio to create some sort of balance. By increasing the percentage of CBD in a certain cannabis cocktail, you can effectively mitigate the strong psychoactive properties of THC. The result is a more manageable high for most consumers.

Medical applications
A major difference between CBD and THC lies in their medical applications. In this particular area, CBD far outshines its THC counterpart. This is because CBD not only acts an anti-psychotic and reduces paranoia and anxiety, but it also helps in boosting your energy levels. Patients with pain, inflammation, bacterial infections, intestinal issues and epilepsy can all gain immensely from CBD intake. In fact, CBD can be used to treat many other ailments apart from the ones mentioned.

It is a general rule that doctors prefer using treatments that have as few side effects as possible. That is why CBD use for medical applications is so appealing since it is essentially non-psychoactive. By reducing THC ratio significantly in cannabis strains meant for treatment, the plant can now be used just for its therapeutic effects without any side effects. Actually, CBD has already been used for treating young kids with various health issues.
Sleep patterns

Cannabis is an excellent sleep aid and is used by many people to deal with insomnia and other sleep-related issues. However, you must ensure that you are taking the right strain in order to get the proper sleep-inducing effects. Strains with a higher THC content are linked to better sleep quality, especially for people with insomnia.

CBD, on the other hand, increases alertness and promotes wakefulness. Those with excessive sleepiness during the day can use CBD to stay alert as it also helps in boosting energy.

Anti-psychotic and anxiety benefits

Unlike THC, CBD offers an antipsychotic effect in the body, and this is what protects marijuana consumers from getting extremely high. Nevertheless, regulating THC is just a small part of the benefits of CBD, as it is also being tested for use in anti-psychotic alternative medicine for schizophrenia patients.

If you have ever experienced paranoia or anxiety after taking marijuana, then it is likely that you were taking a strain that is high in THC. Studies show that marijuana users feel very anxious if they take too much THC. However, CBD can also counteract this anxiety when either administered solely on its own or used in a balanced cannabis strain.

Legality

Although marijuana is subject to strict laws in most countries, especially with regards to THC, the legality of the CBD cannabinoid is not very clear. CBD is still technically illegal in America, but one medicinal form that is known as Epidiolex recently received FDA clearance for testing in kids with epilepsy.

Most notably, CBD is extracted in high quantities from hemp, which contains very small amounts of THC. Better known throughout history as material for making rope and paper, hemp is a highly versatile plant that can also be used in making household products, fabrics and plastics. Some companies even legally import hemp into the U.S. and are able to extract high CBD contents from it.

Sexual Experiences

The other area in which it is also important to highlight the differences between these two cannabinoids is in how they affect your sexual experiences. In this case, higher CBD strains will result in a less euphoric experience. This means that it will likely serve well for recovering after sexual intercourse or even reducing some of the anxiety. The main thing to note here is that CBD does not provide any significant mental change in its users that will impact sexual performance either positively or negatively.
In complete contrast, THC is critical to and has a noticeable effect on sexual performance. This is likely due to the huge mental change that it causes. THC results in either making the experience more pleasurable physically or preparing your mind better for intercourse.

Higher THC strains would, therefore, be recommended to anyone seeking to heighten their overall sexual experiences. In fact, according to many users, there is a significant positive difference with regards to sensitivity following THC consumption, unlike CBD consumption. Nevertheless, these beneficial effects are tied to finding the perfect CBD to THC balance, i.e. a ratio of 1:1.

Be warned that if you use an excessive amount of THC, it will definitely produce negative effects in your sexual experience by increasing anxiety. By using a well-balanced strain, however, you can achieve a nice mix of relaxation and euphoria without the excessive knockout power. The reduction in anxiety means improved experiences for new sexual partners as well as minimizing possible anxiety-related erectile dysfunction issues.

Regarding the sexual effects of CBD intake, it is best used for quickies when you have limited time to really immerse yourself in the high. Otherwise, just use it for reducing anxiety or recovering from acute pain after intercourse.

Differences in edible marijuana

All the above effects of CBD and THC are largely associated with oils or flowers. It is good to also consider the place of edible marijuana in this article. Interestingly, as more people realize the importance of potency, especially high THC percentages, some cannabis advocates support the consumption of small quantities of marijuana. Through micro-dosing, marijuana users do not have to consume too much cannabis so as to achieve the benefits of THC, thereby avoiding its negative psychoactive effects.

Taking a microdose of THC, for example, 1 to 3 mg, is enough to evoke that positive mental shift. Nevertheless, it is worth keeping in mind that edibles tend to react differently in every user based on how their bodies digest and react to them. Therefore, always take your edibles slowly in intervals of around 2 hours so that you can better weigh the effects.

Conclusion

Even though there are over 80 cannabinoids in a cannabis sativa plant, CBD and THC are the most notable ones and therefore, get a lot more attention than the others. Nevertheless, various studies show that no specific cannabinoid can be summed up as being either bad or good. All the various cannabinoids work together to create diverse, therapeutic benefits for the whole cannabis plant.
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CBD For Epilepsy

There has been quite the hullabaloo over the past couple of years about whether marijuana should be used to treat epilepsy. The issue is no longer just a medical one but a legal one as well.

The reality is that use of medical marijuana is still a hot topic that divides the population. Marijuana is well-known as a recreational drug that has always been abused. However, what if this same plant could be used in a positive way to help treat people who suffer horribly from the effects of epileptic seizures? This is definitely a cause worth fighting for.

First, we have to understand what epilepsy is all about. Epilepsy is a term used to describe a neurological condition where a person has a high risk of unexpected seizures. Epilepsy tends to affect the nervous system and is a result of excessive electrical activity in a person’s brain. These seizures occur without warning and usually result in specific symptoms.

These epileptic seizures are caused by irregular electrical activities that trigger changes in the chemical balance within your brain cells. This leads to improper or lack of effective communication between brain cells, thus resulting in communication overflow or failure in cellular communication.

For this reason, epilepsy is sometimes referred to as “seizure disorder.” Medical professionals are able to diagnose epilepsy when the patient has suffered more than two unprovoked seizures in more than 24 hours. In other words, the person must not have any specific medical ailments that could have triggered the seizures. Another way to diagnose this condition is by conducting medical tests to confirm whether another seizure is highly likely to occur suddenly.

Causes of Epilepsy

The reality is that epilepsy does not have any definite cause. As far as doctors are concerned, epileptic seizures can be due to family tendencies or some kind of injury to the brain. Epilepsy is indeed a complicated disorder that requires tactful treatment.

It is important to note that just because a person has seizures doesn’t mean they automatically suffer from epilepsy. There are instances where an individual may be having another medical condition or taking certain drugs that end up triggering seizures. It is only a medical professional who is able to correctly determine what the problem is.

Quick Facts

Here are some facts about people living with epilepsy and seizures:
1. There are about 50 million people worldwide who live with epilepsy [1]
2. There are 3.5 million Americans living with epilepsy [2]
3. 1 out of 26 Americans will become epileptic at one stage in their life. [3]
4. There are 150,000 new cases reported in the US annually.
5. One-third of all epileptics endure uncontrollable seizures due to lack of effective treatment.
6. 60 percent of epileptic cases do not have a known cause.

Types of Epilepsy Syndromes

As mentioned earlier, epilepsy can be quite complex to diagnose. This is because this disorder is typically defined by a group of features. Whenever a particular disorder is defined through a specific cluster of features that manifest at the same time, the disorder is referred to as a “syndrome.”

Such features can be symptoms and signs that the patient notices or their doctor finds during a lab test. In other words, the different types of epilepsy syndromes are classified according to the features the patient displays.

There are over 20 different types of epilepsy syndromes, including:

- Dravet
- Temporal-Lobe
- Infantile Spasms
- Myoclonic Absences
- Juvenile-Myoclonic
- Frontal-Lobe Epilepsy
- Angelman
- Rasmussen’s
- Myoclonic-Encephalopathy
- LGS

The above syndromes can be diagnosed using clusters of the following features:

- Age when the seizures started
- Whether seizures are hereditary
- The section of the brain affected
- Genetic information
- Results of brain scans
- Pattern of seizures during the day
- Severity and frequency of seizures
These are just a few of the features used to diagnose this condition. It is important to classify the type of epilepsy syndrome so that the right treatments are provided.

Effects of Epilepsy

If you have ever witnessed someone living with epilepsy, then you know how devastating this condition can be. The side effects will depend on the type of epilepsy disorder they have. Some people may suffer from the odd seizure while others may be totally bedridden in a semi-vegetative state. Other effects include learning disabilities, unexplained injuries, cognitive disabilities, reduced reproductive health, and risk of death [4].

Current Treatments

At the present moment, epilepsy patients are being treated with a variety of drugs depending on the syndrome that they have been diagnosed with. Some patients get by using one or two types of medication, while others have to survive on a cocktail of drugs.

But are these pharmaceutical drugs actually helping these patients? These medications tend to produce several agonizing side effects. Most of them stop the seizures by simply knocking the patient out and leaving them in a semi-coma.

For example, the Dravet syndrome usually affects children within the first one year of their life. Dravet doesn’t respond well to medication or a change in diet [5]. On top of that, the seizures tend to follow each other very closely, which hinders the child’s development. This can leave the parents helpless and with no options.

CBD as an Alternative Treatment

The adoption of medical marijuana to treat epilepsy started with Charlotte Figi. She was desperate to try anything that would help her daughter, Charlotte, who suffered from Dravet Syndrome. She used a marijuana strain that contained very low levels of THC (tetrahydrocannabinol) to successfully treat her daughter. This led to a large outpouring of support for medical marijuana to be used as an epileptic drug.

Now, it is important to note that CBD, or Cannabidiol, is also a derivative of the marijuana plant. CBD and THC are known as cannabinoids and are two of the largest ingredients in the marijuana plant. Cannabinoids are the active ingredients that react with the body’s cells to create an effect.

The problem people have with medical marijuana is the fear that it will cause psychotic reactions, or “a high.” However, marijuana strains that have high CBD and low THC levels are safe because CBD has no psychoactive reactions in the body. CBD also neutralizes THC, thus ensuring that the patient will not experience any negative changes in mental state.
Research shows that CBD can potentially be used to treat epilepsy and stop the convulsions [6]. In one particular study, 15 epilepsy patients were split into two groups. Eight patients were given CBD on a daily basis while the rest were given placebos. After a 4 ½ month study, it was revealed that four out of the eight patients that had been taking CBD were totally free of seizures during the experiment. Three of the CBD patients had experienced partial improvement with regard to their condition. Only one patient didn’t experience any improvement after taking CBD. The condition of seven of those who had been given placebos didn’t change at all, with only one placebo patient showing improvement.

The same study was also conducted on a group of eight healthy volunteers to see whether there would be any negative side effects of CBD. The results showed that there were no side effects at all.

So if Charlotte’s mother was able to use medical marijuana to treat her daughter’s epilepsy, and research also indicates its effectiveness, why hasn’t CBD been adopted as a widespread treatment?

Politics and Legalities

In some states in the United States, marijuana use is still illegal. This means that some people are forced to smuggle the drug just so that their children can get treatment for epilepsy. Shipping CBD across state lines is illegal, so most companies tend to label their products as hemp extracts.

The strange thing is that the state and federal laws also contradict one another when it comes to the use of medical marijuana. Some states allow its use but federal laws don’t, so doctors and researchers are caught in a bind since they may violate the law one way or another.

Another issue is comprehensive research regarding the safe use of CBD as a legitimate treatment for epilepsy. Yes, some research has been conducted and positive results have been presented, but studies can only be done on humans on a limited scale due to federal laws. Researchers find it extremely difficult to conduct widespread studies because they are only allowed limited access to marijuana, thanks to federal regulations. Access to CBD, high financial costs, and time constraints also play a role in limiting effective studies.

Conclusion

The issue of whether CBD should be used as a treatment for epilepsy is a sensitive one. Some say that CBD Oil has negative side effects and has not been well researched, but such claims are unfounded considering that it is the laws that are hindering any meaningful research. CBD has been proven to be effective in treating epilepsy, and it is high time that there was a sustained and urgent push to finally allow patients to get access to medication that can effectively restore them to normalcy.
References

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5. https://www.dravetfoundation.org/what-is-dravet-syndrome/
CBD For Depression

As a nation as well as globally, we are seeing an exponential rise in cases of depression. This generation is, without doubt, enduring a much greater depressive burden than any other in all of history. There seems to be a distinct lack of peace of mind and genuine joy despite all the trappings of modernity and technology that we flaunt. In the US, depression has become such a common phenomenon that people assume it is an ordinary part of life.

Depression is a mental condition that is associated with feelings of intense despair, hopelessness, and despondency. Every waking thought is dark and your life seems like it is spiraling from one crisis to another. With all the problems and stresses that we face on a daily basis, such as rising costs of living, strained relationships, broken families, crime, and drug dependencies, it is clear that rates of depression will not be going down anytime soon.

One of the worst things about depression is that it doesn’t just occupy one area of your life. It totally encapsulates your entire life so much that it quickly becomes a second skin. No matter what positive things are happening around you, all you can think of and see is hopelessness, negativity, and failure.

Yes, there are occasions where you may feel sad and low for a while, but this is normal. Most people who experience this kind of depressive state are able to overcome it by talking it out or simply getting a good night’s sleep. Then life goes back to normal.

However, when depression becomes this never-ending deep and dark hole that sucks all the light and life out of you, it then becomes a mental disorder that requires medical treatment. If you feel that you are unable to snap out of your continually depressed state despite your best attempts, you may be in need of treatment that gets to the core of the issue. This article will explain how CBD can help you treat depression.

Causes of Depression

Depression doesn’t just appear out of nowhere. There are specific factors that trigger this mental condition. The main thing to remember is that these factors don’t elicit the same response in every individual in exactly the same way. In other words, a trigger that may cause depression in one person may not do so in somebody else.

Some of the causes of depression include:

- Self-preoccupation – This is where you become extremely absorbed in yourself in an unhealthy or negative way, and you literally lock out the rest of the world.
- Extreme stress – The stresses of the modern life can strain your mind, especially considering its fast pace, technology, traffic, and other forms of urban chaos. Work-related stress can also make you feel overwhelmed.
- Social pressures – Failure to achieve a high social status within the time frame you had set can trigger depression. This gets worse when family and friends place heavy expectations on you to get a better job or settle down in marriage.
- FOMO – This stands for “Fear Of Missing Out” and is a phenomenon linked to our crazy infatuation with social media. We all want to be liked and followed on Facebook and Twitter, just to appear popular and achieve some semblance of fame. If this doesn’t happen, depression can set in. People have also become addicted to their smartphones and are always engaging in some online activity just to keep abreast with the latest gossip and news. Just watch what happens when someone loses their phone. A panic attack is imminent!

**Symptoms of Depression**

The symptoms of depression can be grouped into two categories – Emotional symptoms and Somatic symptoms. Emotional symptoms include:

- Guilt
- Anxiety
- Obsessions and compulsions
- Depressed moods
- Lack of interest in pleasurable activities
- Suicidal tendencies

The somatic symptoms include:

- Lack of energy
- Changes in appetite
- Changes in weight
- Lack of concentration
- Difficulty in sleeping

**Current Mode of Treatment**

Most people who go to the doctor for treatment of depression will be prescribed some light antidepressants to help them in the short term. If the doctor sees that the patient’s mental condition hasn’t improved, they then prescribe much stronger medication.

If antidepressants are working so well, why then do we need CBD to treat depression? Well, the truth is that antidepressants are not an effective solution. These drugs don’t actually solve the causes of depression and they bring about many negative side effects in the long term.
Antidepressants are able to reduce the feelings of depression, but once you stop taking the medication, the depression simply returns with disastrous effect. Antidepressants can be addictive, and some of the symptoms of withdrawal include nausea, agitation, insomnia, headaches, hallucinations, bipolar illness, anxiety, and dizziness [1].

The side effects of antidepressants are also of major concern. The chemicals found in antidepressants tend to place a heavy strain on the kidneys when the organ tries to clean the blood. Considering the fact that some antidepressants stay in the bloodstream for up to 4 months, it is clear to see that daily use of these drugs can have negative effects. These drugs change the balance of chemicals in the brain, which can lead to dry mouth, weird dreams, jitteriness, reduced sexual desire, blurred vision, irritability, suicidal thoughts, and fatigue [2].

**Treatment Using CBD**

CBD, also known as Cannabidiol, is the major non-psychotomimetic element found in the marijuana plant. We all know that people have been using marijuana to “get high.” However, this plant contains two active ingredients – THC (tetrahydrocannabinol) and CBD. Out of these two Cannabinoids, it is the THC that makes you high, but the CBD does not have any psychoactive reactions with the body. In fact, the CBD works to neutralize the psychoactive tendencies of THC. That is why CBD is currently being used to treat depression and many other ailments.

According to studies performed in mice, CBD is able to induce antipsychotic and anxiolytic effects in animals. The study concluded that CBD activates the 5-HT (1A) receptors in the body which then triggers an antidepressant effect on the brain [3].

Another study conducted on rats also revealed that CBD has the capacity to effectively and safely act as an anxiolytic agent and antidepressant [4]. Adult Wistar-Kyoto rats, which are known to be very sluggish and depressive-like, were given CBD and placed in a maze to see how they would react. It was discovered that CBD increased their motivation to explore and move around. This proved that CBD can have a beneficial impact in treating clinical depression and prominent anhedonia. Though studies are still ongoing to better understand CBD and its healing benefits, all this research indicates that CBD can be successfully used as a treatment for depression.

**Why CBD is a Better Option**

Research conducted on CBD shows that this naturally occurring chemical works very fast within the body to create a prolonged antidepressant state [5]. In other words, it can be used to relieve depression quickly and its effects last much longer than conventional drugs.

By simply examining the results of the studies conducted on the effects of CBD, it is clear to see that Cannabidiol is able to treat depression very effectively. Apart from depression, it also has
many other healing benefits such as treatment for epileptic seizures, anxiety, chronic pain, and many other ailments.

Some people are apprehensive about its use because it is sourced from the Cannabis Sativa plant. Cannabis has over 70 different active ingredients, with one of them being THC, but as we mentioned earlier, CBD does not have any psychoactive effects on your mind.

Another fact to ponder is whether CBD has any negative side effects compared to conventional antidepressant drugs. So far, the side effects have been minimal.

Is CBD For Everyone?

It is always a good idea to consult your medical practitioner before you use CBD to treat depression. This is very important especially for those who may be suffering from any other ailments or conditions. Let your doctor inform you on whether you should combine CBD with your current medication. In case you are pregnant, you should definitely consult first.

Your doctor should be able to tell you how to transition from conventional antidepressants to CBD Oil. There are also legal issues that you need to consider. In some states in the US, you must get your CBD Oil using a prescription from your personal physician.

With regards to the legality of CBD in the USA, all states have approved its use as long as you are above 18 years of age. However, you will have to check whether your state has placed any restrictions on CBD as treatment for depression.

Conclusion

While there are tests and studies still being conducted, the results so far are very promising. CBD is a much better way to treat depression because it doesn’t come with all the negative side effects of regular antidepressant drugs. It won’t take a toll on your kidneys and works very fast to treat depression. As long as you consult your doctor and follow the legal guidelines, you can effectively use CBD to successfully treat depression.

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CBD For Anxiety

We all get anxious at some point in our lives. However, is this really healthy and do we manage it correctly? Furthermore, just how or when do you know that your anxiety is getting out of hand and what is the best way of treating it?

Anxiety is a feeling that is often characterized by intense fear, worry, or nervousness, typically about an imminent event or something with an uncertain outcome. It can be distracting at best and all-consuming at worst. Anxiety is normal in our lives and can actually be desirable because it's a critical adaptive response that helps us avoid problems and strive to be safe. That fear that things might go wrong somehow motivates us to stay on track and act more responsibly.

For instance, anxiety can make you work harder to improve your situations like work and relationships. Also, a student that is anxious about their results is bound to study harder just because of that fear of failing. It is also manageable and outbreaks can be prevented through maintaining a healthy lifestyle, for example, a healthy diet, regular exercise and maintaining regular sleep patterns. However, when we don’t manage anxiety effectively, consistent long-lasting anxiety can result in the form of an anxiety disorder. This is a beast that needs to be dealt with immediately before it leads to medical and mental illnesses.

Symptoms Of Anxiety

In case you’re wondering how you would know when your anxiety is getting out of hand, here are a few clues. Anxiety disorder can be characterized by uneasy body reactions some of which include panic attacks, cold or sweat outbreaks, insomnia, nausea, dry mouth, and tense muscles.

Types Of Anxieties

There are different types of anxieties which can be grouped in the following ways:

- General anxiety – This is a chronic disorder where you have long-lasting anxiety and worry about non-specific life events.
- Social phobia -This is a type of anxiety where you get scared of different social situations.
- Panic disorder – This is where anxiety and fear arise frequently and without reasonable cause. It is characterized by sudden panic attacks, chest pain, and heart attacks.
- Post-Traumatic stress disorder – This is a type of anxiety that is caused by an unfortunate event happens in your life, leaving a huge negative impact.
• Obsessive-compulsive disorder – This is a type of anxiety that makes you become extremely obsessed with things or even people. The victims also experience constant hallucinations.

How To Treat Anxiety

Having looked at what anxiety is, the various symptoms, and the different types of anxieties, the obvious question now is; how do you treat anxiety disorders?

It is clear that an anxiety disorder is not something anyone could wish to live with. It affects individuals psychologically, physically and emotionally thus generally impacting negatively on their health. Therefore, this gives us more than enough reasons to get the best way of treating it.

There are various methods which people use to treat anxiety, with the most famous one being the use of antidepressants. Frequently treatments consist of a combination of psychotherapy and behavioral therapy. However, at the end of the day, you don’t want to keep doing trial and error to treat your anxiety! So what is the surest way of treatment?

Well, research has proven that CBD is a long-term and natural solution to anxiety issues as well as other several health conditions.

What Is CBD?

CBD (Cannabidiol) is one of the active ingredients found in Cannabis, a famous plant that has over 65 active ingredients. CBD, however, is not psychoactive. It is not like some other ingredients that are found in cannabis, for instance, THC (Tetrahydrocannabinol). THC is another active ingredient in Cannabis and is a known psychoactive substance.

Though CBD has significant levels of cannabis sativa, it doesn’t cause the psychoactivity that marijuana does. This is what makes it acceptable by the medical community as a genuine treatment option. It’s a pharmacologically broad-spectrum drug that has grown increasing interest and has been used in the past few years as a treatment for a range of neuropsychiatric disorders. Consequently, it has been proven to be an effective treatment not only for anxiety but also other related disorders. Other conditions that can be treated by CBD include depression, pain, neurodegenerative disorders (e.g. dementia), blood pressure, lactose intolerance, and epilepsy.

How CBD Helps With Anxiety

CBD (Cannabidiol) treats anxiety by working on one’s serotonin levels through a cannabinoid receptor effect. It directly impacts on the stress responses which are obviously mental.
With CBD oil, you have cannabinoid receptors all over your body, including in your skin and digestive tract. What CBD oil does is it binds to the cannabinoid receptors in your body, thus affecting the endocannabinoid system. This helps with inflammation, mood, memory, immune system, reproduction, pain perception, sleep, and appetite. CBD oil has clearly proven itself as a therapeutic remedy to help a variety of ailments.

There is sufficient evidence from the research that has been done over the recent years that CBD actually treats anxiety by alleviating the fear responses produced in individuals’ minds. Studies done on animals with anxiety as well as on healthy volunteers proved that CBD can be used as an anxiolytic drug. It was also shown to reduce anxiety in patients with social anxiety disorder, one of the most common anxiety conditions that impair a person’s social life.

Dosage

cBD is still in its early stages of research and thus determining the particular dosage for each individual is a bit tricky. Your current source of CBD oil will also determine its strength and bioavailability. This is because medication prescription is determined by a variety of factors, for instance, weight, age and the strength of the medicine. Putting these factors into consideration, you need to keep these two things in mind:

1. Introduce small doses of CBD for a start.
2. Maintain the same dosage for a few days to assess the results before increasing it.

Commencing slowly and increasing the dose gradually ensures that you're not overdosing or wasting your CBD oil. This enables you to identify the perfect dosage that works for your specific condition instead of relying on information that probably suits a different individual.

Just to guide you more on how to start, scientific research indicates that an amount of 40 mg per day is recommended for beginners.

CBD Compared to Antidepressants

One might wonder; why use CBD to treat anxiety when you can easily use antidepressants? In most scenarios, people use antidepressants whenever faced with anxiety disorders. The antidepressants only suppress the anxiety but don’t actually deal with the root problem. This makes people become hopelessly dependent on them since the moment they stop using them, the anxiety automatically returns even worse than before.

Nevertheless, the side effects are concerning. A long-term use of anti-depressants also puts a heavy strain on the patient’s kidney to cleanse the blood from the chemicals contained in them. Considering that some drugs must be taken daily, anti-depressants are not a good option. They are also extremely addictive and result in withdrawal symptoms when discontinued, for example, dizziness, headache, and nausea.
This is where CBD is different. CBD is not a psychoactive substance, so there is no danger of getting “high” from it. There are also no harmful side effects or withdrawal symptoms when using CBD products. This qualifies it to be a risk-free treatment that can also help with other health problems like digestive issues, insomnia, and stress. For your information, the main reason why CBD has gotten so much of the spotlight lately is that CBD oil has helped people with rare conditions such as the Dravet syndrome, a rare form of epilepsy that is hard to treat. People have been enabled to cut down the numerous number of seizures to zero within a week.

How is it administered?

First things first; before using any type of CBD, you must ensure you are using a high-quality brand. There are a lot of scammers out there. The best way of obtaining the product is by ordering from pharmacies where you need a prescription or through a high-quality brand, for example, Elixinol. However, before going down the CBD oil route, it is always best to consult with your doctor to understand which CBD oil is best for you.

Here are some of the things that you should consider before getting started:

- Do I have an anxiety disorder or simple daily stress?
- Do I need to combine THC with CBD?
- What’s my main consideration – price or strength?
- What are the legal restrictions in my state?

Please note that there are two primary ways to supplement with CBD oil to treat anxiety and depression. You can take pure CBD oil that has no THC (e.g. CBD hemp oil), or you can take CBD oil with THC to get the benefits of both (e.g. Cannabis oil).

Conclusion

CBD for anxiety is a scientifically proven way of treating anxiety. Animal studies have characterized the details of how CBD acts on the brain, and human studies of patients with and without anxiety disorders have started to validate CBD’s efficacy as an anti-anxiety treatment. With the current huge social and financial costs of anxiety disorders, CBD has the potential to play a significant role in treating a multitude of anxiety-related disorders.

Resources

- [https://www.projectcbd.org/anxiety](https://www.projectcbd.org/anxiety)
• http://thehempoilbenefits.com/cannabidiol-cbd-oil-for-anxiety
• http://thehempoilbenefits.com/cbd-for-depression
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What Are Cannabinoids?

Cannabinoids are the active chemical compounds produced by the Cannabis Sativa plant, which is more popularly referred to as the marijuana (weed) plant. Cannabis sativa is known to produce more than 421 chemical compounds, and it is estimated that about 80-110 of these compounds are cannabinoids.

It is also believed that the cannabis plant could contain even more cannabinoids but the majority of them are in such small quantities that scientists have a hard time detecting them. Most of these cannabinoids (the technical name is phytocannabinoids) are unique to cannabis and no other plant has shown any signs of containing these compounds.

As single compounds, each cannabinoid offers numerous inherent medical benefits to humans. However, studies show that there is a synergistic effect when cannabinoids are combined with each other [1]. In this article, we are going to take a look at the more well-known cannabinoids and the benefits they have on the body. These are what are considered the major cannabinoids according to the levels that can be found in cannabis. The first two, THC (tetrahydrocannabinol) and CBD (cannabidiol), are the primary cannabinoids simply because they are available in greater quantities and are the ones most consumers want to use. The rest are not really as well-known as the first two.

The Main Types of Cannabinoids

It is important to understand that the cannabis plant does not directly produce THC, CBD, or the other cannabinoids. What it does is it synthesizes a number of cannabinoid acids which are then decarboxylated by heat to produce the plant cannabinoids such as THC and CBD. Decarboxylated is just a fancy way of saying, “activated.” Here is a list of the 7 main cannabinoids in order of the levels found in the cannabis plant:

- THC (Δ9 – tetrahydrocannabinol)
- CBD (Cannabidiol)
- CBC (Cannabichromene)
- CBG (Cannabigerol)
- CBN (Cannabinol)
- THCV (Tetrahydrocannabivarin)
- CBDv (Cannabidivarin)

THC

The full scientific name for this cannabinoid is Delta (9) – tetrahydrocannabinol. This compound is a favorite among weed smokers because it is what is responsible for the “high” effect that characterizes marijuana. THC is the sole cannabinoid that has been proven to have a
psychoactive effect on people. THC was first isolated and synthesized in 1964 by Raphael Mechoulam, and it has been the main focus of research in cannabis ever since [2]. THC is the most common cannabinoid in the cannabis drug, and research shows that it acts as a psychoactive agent, muscle relaxant, analgesic, and antispasmodic [3]. Some studies also show that THC is effective as a bronchodilator and neuroprotective antioxidant [4]. One thing to note is that THC can be converted into cannabinoil (CBN) over time. This is why older cannabis plants tend to have greater levels of CBN, especially if they are not stored appropriately. THC has numerous medical benefits, but here are just a few of the ailments that it is used to treat:

- Neuropathic pain
- Parkinson’s disease
- Crohn’s disease
- Post-Traumatic Stress Disorder
- Alzheimer’s disease
- Multiple sclerosis

THC is a very powerful compound, and despite all the research that proves its efficacy in the medical treatment of various ailments, it is still a banned substance. Did you know that THC is actually 20 times more powerful as an anti-inflammatory drug than aspirin, and is twice as powerful as hydrocortisone [5]?

CBD

Cannabidiol is the most well-known cannabinoid after THC, and is the most common phytocannabinoid found in hemp plants. It also has a long list of medical uses, just like THC, but does not provide the same psychoactive effect. In other words, you cannot get high through ingesting CBD. This is why CBD is more legally accepted in many states in America than THC. The moment the mainstream media latched onto the fact that CBD has could be used to treat numerous ailments, researchers rushed to learn more about this cannabis compound. Studies have also shown that CBD is a potent analgesic [6], neuroprotective, antioxidant [7], anticonvulsant [8], and anti-nausea [9]. CBD has proven itself to be very adaptable from a pharmacological point of view [10]. Research shows that CBD can be used to treat a host of conditions, including:

- Anxiety
- Diabetes
- Epilepsy
- Neurodegenerative disorders e.g. Huntington’s, Parkinson’s and Alzheimer’s
- Depression
- Ischemia
- Chronic pain
- Psychotic disorders
There are preliminary reports that indicate the suitability of CBD as an antipsychotic drug. Research conducted on both healthy and psychotic patients showed that CBD had a similar pharmacological profile as Clozapine (a typical antipsychotic drug) but caused fewer undesirable side effects, for example, catalepsy [11]. The same study also pointed to CBD as having the ability to keep a person alert at low doses or induce sleep in higher doses. This biphasic effect is quite notable. CBD can also be used to reverse brain trauma that has been caused by cerebral ischemia. However, the ability of CBD to protect the brain is a bit different from the way THC reacts. CBD tends to have a more lasting effect and seems to be effective both before and after the ischemia [12].

CBC

Cannabichromene is the 3rd most common cannabinoid found in cannabis. There are even some cases where a cannabis strain produces more CBC than CBD. Just like CBD, CBC is also not psychoactive. Here are some of the benefits of Cannabichromene:

- Anti-inflammatory – Though CBC can fight inflammation as a single compound, research shows that it is more effectual when mixed with THC [13].
- Anti-depressant – Tests have shown that CBC fights depression when administered in large doses. Researchers at the University of Mississippi discovered that mice that received 80 mg of CBC struggled more during the Tail Suspension Test than those given 40 mg of CBC. In fact, these mice struggled more under CBC than when given other cannabinoids [15].
- Promotes neurogenesis – A study conducted in 2013 revealed that CBC can stimulate the growth of new cells in your brain [16]. When you grow older, cells in areas of the brain responsible for learning and memory keep growing. Cessation of this growth is what triggers the onset of neurodegenerative diseases like Alzheimer’s.

CBG

Since cannabigerol is only available during the early growth stages of the cannabis plant, it is rare to find it in large amounts. It is also non-psychoactive and has the following medical benefits:

- Antibiotic and antifungal – CBG is as strong an antibiotic and antifungal agent as CBD, and much more potent than CBN.
- Psoriasis treatment – CBG prevents your skin from reddening and also offers therapeutic relief for psoriasis patients [17].
- Pain relief – Research shows that CBG is a stronger pain reliever compared to THC [18].
- Antidepressant – CBG boosts levels of serotonin in the brain and also regulates mood.
CBN
This compound is what is produced when the cannabis plant dries and becomes stale. It has the following medical benefits:

- Stimulates appetite – Research conducted on rats showed that those treated with CBN consumed considerably more food than those given CBD [19].
- Antibiotic – CBN provides powerful antibiotic resistance to MRSA infections.
- Pain relief – CBN can relieve pain by releasing endorphins and relaxing tight blood vessels.
- Eases symptoms of ALS – Results of a 2005 study show that CBN is able to lessen the symptoms of patients with ALS [20].

THCv
THCv (Tetrahydrocannabivarin) works together with THC but is only 20 percent as psychoactive as its more popular counterpart. THCv has medical applications such as:

- Anticonvulsant – Research shows that THCv significantly prevents seizures in the brain of rats [21].
- Neuroprotective – THCv mitigates some of the effects of smoking weed. It prevents the speech and temporary memory impairment that occurs when you smoke a high-THC strain of marijuana.

CBDv
Though there hasn’t been adequate research conducted on cannabidivarin, preliminary test results look promising. CBDv is a bit different from CBD in terms of molecular shape but they are quite similar in terms of the medical benefits they provide. These include:

- Anticonvulsant – GW Pharmaceuticals recently announced that they had patented CBDv for use as an anti-epileptic drug. Studies prove that CBDv can prevent seizures in rats [22].
- Nausea treatment – Researchers at Ontario University discovered that CBDv was a powerful anti-nausea agent [23].

Conclusion
As you have learned, there are many cannabinoids in the cannabis plant, and the majority of them are yet to be identified and tested. From the little that we do know, however, it is clear to see that cannabis has numerous medical benefits, whether smoked or ingested. The cannabinoids mentioned above are just the major ones that are found in larger quantities, and yet their effect on the human body is extremely amazing. The truth is that cannabinoids have
great medical potential, especially if you consider how potent they can be when combined in the right quantities. Of course, more research needs to be done, but we now have a glimpse of just how useful cannabinoids can be in treating diverse diseases and ailments.

References:

1. https://www.researchgate.net/profile/Ethan_Russo/publication/10983207_Cannabis_is_more_than_simply_delta(9)-tetrahydrocannabinol/links/0c9605162c844b86d1000000.pdf
How Is CBD Made?

With hemp cultivation being made legal in some countries, there are now lots of discussions going on as to the medicinal properties of CBD oil and how it is being used to treat and cure several diseases and illnesses. Hemp is a cannabis derivative and, as such, it has got some people worried about the repercussions of using it, both legally and in terms of the effect it has on them but there is little reason to worry given that CBD oil is now used in therapy clinics across the world.

CBD is a natural cannabidiol found in the cannabis plant; the other one is THC and this is where confusion may arise. Some cannabis plants have more CBD while others are higher in THC. CDB dominant plants are from the Indica strain while THC dominant plants are from the Sativa strain. The latter provides a user with a feeling of being uplifted while the CDB plants provide a relaxing feeling, great for treating acute pain.

CBD oil has been successfully used in treating both children and adults with epilepsy or other seizure disorders. This is because it has such a low THC content – the compound that produces the high. Because CBD is useful for the treatment of some medical conditions, many US states, along with other countries, are now legalizing it for medical use. And, not many people known this, but CBD oils is one of the main ingredients in the e-cigarette vaping oils.

Where Does CBD Oil Come From?

The CDB oil comes from the Indica cannabis plant flowers, concentrated in the trichomes or resin glands. Several different production techniques are used in the purification and concentration of this oil – the higher the CDB potency and concentration, the less need to be used. Many people opt for the more potent versions because the cost of the oil is not cheap and it is quicker to work in the higher concentrations. Because CDB oil is liquid, it can be used orally and is easy to administer to those who require it for treatment.

How CBD Oil is Produced

The industrial production of the oil consists of a combination of the CBD plant and other compounds, such as butane, olive oil, ethanol or CO2., however, these compounds will leave a residue in the finished product. The most important bit of the extraction process is in choosing the right plant and the final cost will depend on the purity and potency.
Extraction Method 1 – Carrier Oil

This is thought to be the cheapest extraction method and it contains the least amount of chemical residue and a high dose of acids rich in omega. The carrier oil used is normally olive oil or hemp seed oil, both being very effective oils at extracting the resin from the plant. The drawback to using this method is that the shelf-life of the oil is much shorter. It is, however, effective when used topically or orally.

Extraction Method 2 – CO2

Otherwise known as the decarboxylation method, this is a highly scientific way of extracting the oil from the plants. It is also the cleanest. It is sometimes called a super-critical method and uses carbon dioxide under varying pressures to extract the CBD oil. In short, the carbon dioxide is forced, using a series of chambers, through the plant material, expelling the oil in the process. Each chamber controls pressure and temperature and it is these that cause the reaction between the CO2 and cannabinoid, resulting in the separation. As the cannabinoids are separated, each is collected into a different chamber, allowing for only the cannabinoids required for a specific recipe to be used. It is an incredibly expensive method of extraction because the equipment used in the process can only be operated by trained persons. However, the main advantage to this method is that oil is the purest form of CBD oil, has no chlorophyll in it and is highly potent. However, if too high a heat is used, the terpenes that exist in the oil may be damaged – it is the terpenes that add the flavor and have the therapeutic benefits.

Extraction Method 3 – Solvents

Extraction using solvents is another inexpensive extraction method and tends to be used by the smaller scale producers of the oils. Solvents, such as ethanol and butane are used for the extraction but there are a few serious disadvantages to the method. First and foremost, there is a very high potential for explosion, causing serious damage and injury and second, the solvents tend to leave a residue in the oil. Most doctors and scientists say this is not a good method to use because the resulting CBD oil may not be safe for use in medical treatments and can make an existing condition much worse. This is down to the residues that are left in the oil, resulting in a lowering of the potency and the therapeutic benefits.

Extraction Method 4 – Alcohol Derived from Grain

This technique produces CBD oil of a medicinal grade, between 2 and 4 grams from each flower. Using grain alcohol leaves the least amount of residue and there are fewer impurities in the oil to cause problems when it is consumed. It is also one of the safest and simplest of methods of extraction but should be done with a high-proof alcohol that is classed as food-safe. This is the one method that anybody can use to produce their own CBD oil, without the need for any special knowledge, skills or equipment. Use of grain alcohol doesn’t leave any unpleasant
tasting or harmful residues and is the absolute best method for producing smaller batches of edible CBD oil.

The Recipe
Ingredients:

- About 30 grams of buds ground up OR 60 to 100 grams of shake or trim ground up
- 4 liters of grain alcohol or any other alcohol that is high-proof and food-safe

Equipment Required:

- Mixing bowl – ceramic or glass. Do not use plastic or metal bowls as they taint the oils
- A fine strainer – a fine-mesh sieve, cheesecloth, even nylon stockings will do the job
- A container for catching the oil
- A double boiler – if you don’t have one, use two saucepans or a pan and a bowl that fit together with space between
- A wooden spoon
- A funnel
- A silicon spatula
- A plastic syringe

Instructions

1. Make sure your working area is cleaned thoroughly before you start. Set up your equipment around you, making sure it has all been sterilized before use.
2. Place the ground plant material into the mixing bowl and pour in enough alcohol to cover it completely.
3. Use the wooden spoon to stir the mixture for about 3 to 5 minutes – this will expel the resin from the bud. Make sure that your bowl is big enough to easily hold the raw material and the alcohol.
4. When you have finished stirring, place the sieve or strainer over your container and pour the mixture into it. Squeeze as much of the liquid out as you possibly can.
5. Place the raw material back into the mixing bowl and add more grain alcohol; stir again for a few minutes to extract as much resin as you can. Repeat the filtering process.
6. Now pour the liquid you strained out into the double boiler and turn on the heat.
7. Heat it gently until it begins bubbling and allow the alcohol to evaporate off – do not turn the temperature up. Keep it as low as you can or turn it off and then on again as needed – the mixture must continue to bubble for 15 to 30 minutes.
8. Continue to stir and do not let it get too hot. As the alcohol starts to evaporate, use the silicone spatula to mix the solution and keep the sides of the pan scraped to stop the mixture hardening on and to ensure it is fully combined.
9. Now comes the delicate bit – transferring your oil into storage bottles or into dosage containers – this must be done before the oil cools and thickens too much. You can use plastic syringes to draw up the oil and store as doses or you can transfer the oil into darkened containers that are airtight. To portion the doses use a small spoon, a toothpick or squeeze a small amount out of the syringe.

Most natural extracts of CBD are concentrated and thick the quality is going to depend mainly on the quality of the raw material that you use. You can dilute the oils with coconut oil, olive oil or any other vegetable oil but this should be done as the last stage of the process, while the oil is still warm. This will give you a great topical ointment that you can use for skin complaints.

The Testing Process

Each manufacturer will have their own testing standards but, generally, the oil will be tested for the reliability of the cannabinoid content and its safety before it gets released to market. The oil should be tested for:

- Degradation
- Contamination
- Damage

And this must be done before selling to ensure that customers only get the very safest and most reliable of CBD oils.

While pure CBD oil may be directly consumed, several other methods have come onto the market in recent years, including:

- Liquids
- Tinctures
- Capsules
- Body care products for topical application
Conclusion

That’s it for today. Thank you so much for reading!

If you would like to buy CBD online, I highly recommend CBDPure. I’ve used them for years and love their quality.