CBD Training

What is CBD?

***The information has been copied from our product supplier Susan's CBD

Cannabidiol (CBD) is a naturally occurring cannabinoid (chemical compound) of the hemp plant. Our products come from 100% federally legal U.S. industrial hemp production.

Many people confuse hemp with marijuana. Although the two plants share the same genus (Cannabis) they are used differently.

- Hemp contains only small amounts of THC (.3% or less). It can be purified to contain no THC at all. We make topical products that will not give you any psychoactive effects because they contain non-detect levels of THC.
- Marijuana usually has high amounts of THC. This is the psychoactive part of the plant.

Potential Anti-inflammatory Benefits

Increasingly, the hemp plant is being studied and may have positive benefits for <u>pain relief</u>. This includes such conditions as arthritis, chronic inflammation and acute soreness.* In addition, CBD is being studied as a powerful anti-inflammatory.

Treating skin conditions

Many people use CBD salves, lotions and creams to treat skin conditions such as eczema and psoriasis. The potential benefits are three-fold:

- First, we include a highly concentrated form of hemp CBD.
- Second, we blend in our proprietary blend of calming essential oils and skin friendly ingredients.
- And finally, we infuse our base oils for our products with dried calendula and chamomile flowers. After a three week infusion, our oils are strained and used in our products, thus adding plant terpenes and packed with soothing herbs.

How does CBD work?

Cells in the body have receptors (ECD) that CBD can act on. The receptors become activated when applied topically because the CBDs penetrate the outer layer of the skin.

When included in a <u>massage</u>, CBD's interaction with your receptors may induce a number of beneficial effects. Most noteworthy, CBD may block pain, reduce inflammation and promote a feeling of calmness and well being.*

Because CBD offers anti-inflammatory effects, it may also help with skin inflammation, irritations, itching, minor abrasions and other skin conditions.*

Increase CBD effectiveness

CBD is soluble in fats and oil based products. Thus CBD is easily absorbed in <u>salves</u> and <u>balms</u>. This is why we use all natural oils to deliver the CBD to your skin. For that reason, try the following:

- Apply a heating pad to the area to increase the effect and rapidity of the relief.
- Take a hot shower or bath, or soak the area to be treated in warm water prior to applying the topical.

*Please note, these statements have not been approved by the FDA. These products are not a drug and are not intended to diagnose, treat, cure or prevent any disease.

Cannabinoids 101

***This information has been taken from the site Everyday Optimal https://edocbd.com/cbd-vs-cbg

CBD, CBG, and the infamous THC all belong to a large family of cannabis-derived substances called cannabinoids. While there are over 100 known cannabinoids, only a few have been studied. And though each cannabinoid has different effects, what they all have in common is the way they interact with the body.

Specifically, the endocannabinoid system: a network of receptors found throughout the body that help regulate functions such as digestion, mood, pain, sleep, and more.

Cannabinoids mimic neurotransmitters (called endocannabinoids) that our bodies create naturally, and this, in a nutshell, is why CBD, CBG, THC, and others are capable of producing such varied effects. THC, most notably, has psychoactive effects – that is, it gets you high – while CBD and CBG do not.

The amount of each cannabinoid you'll find in cannabis depends on the plant's strain, but hemp is naturally high in CBD, while marijuana is highest in THC.

Meanwhile, you'll find only trace amounts of CBG in the typical cannabis plant.

But this can depend on age; younger plants are higher in CBG, since the cannabinoid breaks down through the aging process. In fact, CBG eventually turns into other cannabinoids, including THC and CBD.

Benefits of CBG vs. CBD

Neither CBG nor CBD will get you high, but that isn't the only thing they have in common. Both of these cannabinoids have few (if any) side effects, while providing a variety of health benefits, many of which overlap.

For example, both CBD and CBG are <u>anti-inflammatory</u>, have neuroprotective properties, and can reduce glaucoma-related eye pressure. Research also suggests that both of these cannabinoids may be able to reduce cancerous tumor growth.

Along with these benefits, CBD has been widely recognized for its ability to relieve pain. Part of its effectiveness in this area is likely due to CBD's potent anti-inflammatory benefits. This makes it especially helpful for those dealing with inflammatory conditions like arthritis – especially since CBD may protect against arthritis-related nerve <u>damage</u>.

CBD can also help reduce nerve pain, as well as myofascial pain associated with conditions such as fibromyalgia, and pain associated with conditions such as migraines and irritable bowel syndrome (IBS).

If that wasn't enough, CBD can also be helpful for anxiety disorders, such as obsessive-compulsive disorder, panic disorder, social anxiety disorder, and post-traumatic stress disorder.

One review of CBD's anti-anxiety benefits concluded that CBD should be studied in clinical trials. Additionally, CBD can improve sleep quality, and has been proven to reduce seizures.

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Just last year, the FDA approved the first CBD drug for treating a form of childhood epilepsy.

While there has been less research exploring the specific benefits of CBG, it shows potential in treating <u>bladder</u> <u>dysfunction</u>, as well as reducing the symptoms of <u>inflammatory bowel disease</u>. CBG is also excellent at stimulating appetite, and it's an effective antibacterial – it may even be able to fight the antibiotic-resistant <u>MRSA bacteria</u>. In fact, that's another benefit CBG shares in common with CBD, along with other cannabinoids like THC, CBN, and CBC. The jury's still out on whether or not CBG is an effective painkiller, and it's also being studied for its potential ability to treat depression and psoriasis.

Overall, it's clear that CBG has a lot of potential, but more research is needed to see how its effectiveness compares against CBD – especially for pain relief.

Combining CBD and CBG

As you can see, many, if not most, of the benefits of CBG overlap with those of CBD, which raises the question: what happens if you combine the two?

Research suggests that combining cannabinoids can enhance their benefits, a phenomenon known as the entourage effect. This doesn't only apply to CBD and CBG, but other combinations as well; for example, CBD and THC provide stronger pain relief when <u>combined than when taken alone</u>.

If you'd like to try these cannabinoids together, you'll want to buy either full spectrum or broad spectrum CBD oil. Full spectrum CBD oil contains all of the cannabinoids and terpenes that were extracted from the cannabis plant alongside CBD; that includes traces of THC, CBG, and others.

Broad spectrum is similar, except it's further refined to remove all traces of THC, while leaving all other cannabinoids intact.

The downside of full and broad spectrum oils is that the amount of secondary cannabinoids (i.e. those aside from CBD) can vary depending on factors such as the plant they were derived from. This makes them somewhat unpredictable when it comes to benefits and side effects.

There is also a greater chance of experiencing side effects when taking broad or full spectrum CBD oils, simply due to the amount of different substances contained within them.

Plus, since full spectrum CBD oil contains THC - even though it's just trace amounts - it can flag on a drug test.

CBG and Research

Endocannabinoid and phytocannabinoid research are in many ways the new wild west. There are many unknowns, and as each new benefit comes to light, there are many more to uncover. Isolated CBG is being studied as a powerful medicine; like CBD it shows promise because it acts on the central nervous system without an intoxicating effect.

The following research discusses pre-clinical studies, meaning non-human, done with CBG and other cannabinoids, on the following conditions:

Bone Marrow Growth

The NHI published <u>a study</u> in 2007 that discusses how cannabinoids interact with bone marrow.

Slows Tumor Growth

This study talks about how Cannabinoids interact with tumors in mice.

Glaucoma

Cannabinoids are being investigated in reducing ocular pressure.

Antifungal and antibacterial treatment

Cannabinoids are "<u>showing potent activity</u>" in addressing MSRA (Methicillin-resistant Staphylococcus aureus). It's a highly antibiotic-resistant strain of bacteria.

Bladder Control

In studies, CBG is being explored for effectiveness.

Research is continuing in many areas including pain and inflammation reduction, skin issues including psoriasis, and with potential neuroprotective qualities.

All of this seems too good to be true like this is the latest medicine show. But the research is in, and this plant's benefits have been studied for longer than popular. People are in less pain, having fewer seizures, feeling more balanced, and are getting better.

How Do You Decide Between CBG or Full Spectrum CBD?

Deciding which product will work best for you depends on what you're looking for. If you're looking for short-term non-frenetic energy and focus, CBG is the way to go. (*But, CBG is very relaxing and some have experience lethargy if it is taken during the day.*)

If you're addressing specific issues, you'll want to determine which isolate or combination works best for you. CBG has been shown to relieve pain, slow bacteria growth, reduce seizures and convulsions, reduce inflammation, inhibit cancer cell growth, lift mood, promote bone growth, promote neuron growth, and increase appetite.

Some people find CBG helps them sleep, and others feel more energized than sleepy when they take it at night. You'll have to experiment.

Full spectrum <u>CBD oil</u> helps with sleep, depression, anxiety, and pain. It helps reduce the risk of diabetes, too and much more.

Benefits of each cannabinoid overlap and people receive them differently based on their body chemistry. It's a good idea to see what works for you. We can help you figure out where to begin.

***The above information has been taken from Steves Goods https://stevesgoods.com/blog/cbd-vs-cbg/

Medical content reviewed by Dr. Joseph Rosado, MD, M.B.A, Chief Medical Officer

When you understand how cannabinoids work with the human body, you can make an informed decision for your

well-being. Let's talk about the differences between CBD and CBG and how you can benefit from each compound.

CBD: A Natural Miracle

The <u>compound known as cannabidiol (CBD)</u> is one of two primary cannabinoids in marijuana. CBD and THC have some of the highest concentrations in the cannabis plant compared to other cannabinoids. THC causes the "high" we associate with marijuana, but CBD has no psychoactive effects. This lack of impairment makes CBD a popular choice for many patients. Patients use CBD to relieve pain, mood disorders, sleep problems and many more symptoms.

CBG: The Parent Compound

In the young cannabis plant, <u>CBG acts as the first form</u> of CBD, THC and cannabichromene (CBC). CBG is a member of the CBG group of cannabinoids that includes cannabigerolic acid (CBGA). The enzymes in a young marijuana plant turn CBGA into cannabidiolic acid (CBDA), tetrahydrocannabinolic acid (THCA), or cannabichromene acid (CBCA). These acids then break down into CBD, CBC or THC. Research suggests that CBG can kill bacteria, reduce inflammation, relieve pain and resolve even more symptoms.

Interactions With the Endocannabinoid System

Cannabinoids have such an impact on our health because they work with our natural systems. We each have an <u>endocannabinoid system (ECS)</u> that uses and makes cannabinoids. When a cannabinoid attaches to one of the system's CB1 or CB2 receptors, it regulates our bodily functions. CBD and CBG have different interactions with the ECS that provide unique benefits.

CBD works by enhancing the ECS' ability to relieve symptoms. It does not attach to the CB1 or CB2 receptors like most other cannabinoids. Instead, it blocks the fatty acid FAAH, which breaks down the endocannabinoid anandamide. Our bodies create anandamide, and it attaches to the CB1 receptor to impact our nervous systems. Some people have an anandamide deficiency or need extra anandamide to relieve their symptoms. With FAAH blocked, anandamide can stay in your system for a longer time in higher amounts.

Meanwhile, CBG seems to act as a partial agonist of the CB1 and CB2 receptors. This means it activates these receptors, but only to a certain extent. While CB1 receptors affect the brain, nerves and spinal cord, CB2 receptors influence the immune system. Since CBG binds to both types of receptors, it benefits all of these parts of the body.