

KNOW YOUR CANNABINOIDS

CANNABINOIDS IN HEMP FLOWER OIL

CANNABINOIDS ARE NATURALLY OCCURRING COMPOUNDS FOUND IN THE CANNABIS SATIVA PLANT. OF OVER 480 DIFFERENT COMPOUNDS PRESENT IN THE PLANT, ONLY AROUND 66 ARE TERMED CANNABINOIDS.

CBC

Cannabichromene

Properties
antimicrobial
antiseizure
anti-inflammatory

CBCA

Cannabichromenic
Acid

Properties
antifungal
antiproliferative
anti-inflammatory

CBD

Cannabidiol

Properties
anticonvulsant
anti-inflammatory
anti-nausea

CBDA

Cannabidiolic
Acid

Properties
anti-inflammatory
anti-nausea
tumor suppressing

CBG

Cannabigerol

Properties
antibacterial
antifungal
muscle relaxant

CBGA

Cannabigerolic
Acid

Properties
antibacterial
anti-inflammatory
pain relief

CBL

Cannabicyclol

Properties
anticonvulsant
antiemetic
anti-inflammatory

CBLA

Cannabicyclolic
Acid

Properties
antioxidant
antitumor
anti-inflammatory

CBN

Cannabinol

Properties
appetite stimulant
bone growth
pain relief

CBNA

Cannabinolic
Acid

Properties
aid sleep
antibacterial
anti-inflammatory

THC

Tetrahydrocannabinol

Properties
anti-inflammatory
anti-nausea
neuroprotective

THCA

Tetrahydrocannabinolic
Acid

Properties
antiseizure
anti-inflammatory
tumor suppressing

THCV

Tetrahydrocannabivarin

Properties
anti-anxiety
appetite suppressant
bone growth

THCVA

Tetrahydrocannabivarinic
Acid

Properties
anticancer
anti-inflammatory
immune system

Δ^8 -THC

Delta-8-
Tetrahydrocannabinol

Properties
anticancer
antiemetic
appetite stimulant

Δ^9 -THC

Delta-9-
Tetrahydrocannabinol

Properties
aid sleep
appetite stimulant
treat asthma

Hal Lewis
09/15/2020





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INTRODUCTION



The scientific name for the Hemp plant is cannabis, which is a genus of flowering plants in the Cannabaceae family; some of them have psychoactive properties (Holland, 2020). The harvested and dried plants and their flowers produce one of the world's most common drugs; Marijuana. This plant creates a thick substance that is “made up of more than 120 components called cannabinoids” (Holland, 2020).

Most persons have only heard about the two popular types of cannabinoids, THC, and CBD. They are taken in several ways and may be consumed separately or together. However, there are several different types of cannabinoids that are isolated from cannabis and exhibit varied effects. Although cannabis comes from a plant and is considered natural, several varieties of chemicals in cannabis have strong positive and negative effects and cause a drug-like reaction in the human body (Holland, 2020. If you are interested in learning about how each cannabinoid affects the body, let us take a closer look at each).



THE MOST COMMON TYPES OF CANNABINOIDS FOUND IN HEMP

- Tetrahydrocannabinolic Acid (THCA)
- Tetrahydrocannabinol (THC)
- Cannabidiolic Acid (CBDA)
- Cannabidiol (CBD)
- Cannabinol (CBN)
- Cannabigerol (CBG)
- Cannabichromene (CBC)
- Tetrahydrocannabivarin (THCV)



TETRAHYDROCANNABINOLIC ACID (THCA)



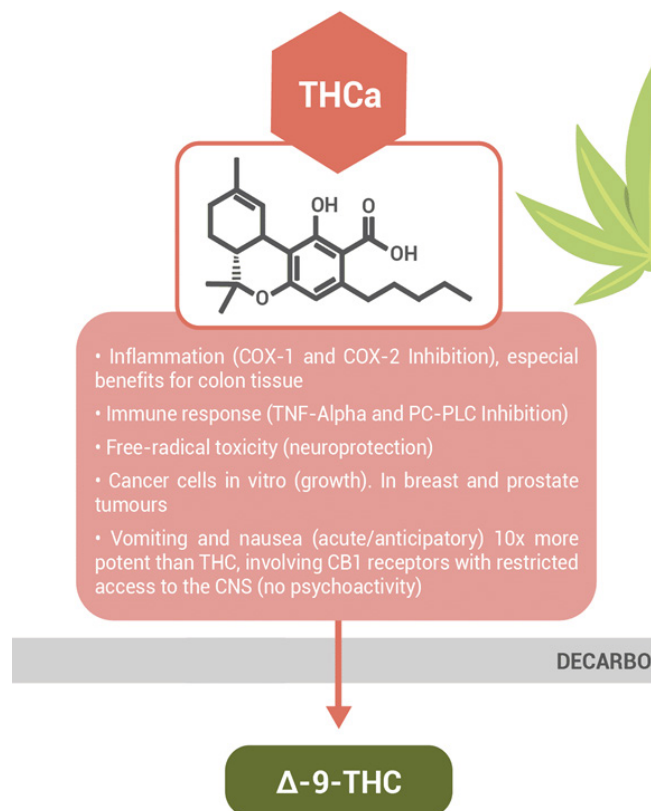
Doctor of Pharmacy, Alan Carter, in a Healthline revision of the article entitled: Sativa versus Indica: What to Expect Across Cannabis Types and Strains, confirms that THCA is not psychoactive and is sometimes used by those in the medical field to treat, prevent, or manage a variety of illnesses, conditions, and discomforts.

Where Can I Find THCA?

Every high-THC strain that has not yet been decarboxylated contains THCA, and these cannabinoid levels are particularly high as a live or freshly harvested plant. For this reason, raw hemp parts are popularly juiced for their THCA benefits (Rahn, 2015).



BENEFITS OF TETRAHYDROCANNABINOLIC ACID (THCA)



SOURCE: KALAPA CLINIC- Cannabinoid Acids: medical benefits of THCA

Currently, not a lot of research into THCA has been done; as a result, it is difficult for us to definitively say what it can treat and its level efficacy. However, the studies that were carried out on THCA suggest that it does have many medicinal benefits. Here are some of those potential benefits that past research has begun to unveil:

- **Anti-inflammatory properties:** for treating the sometimes unbearable symptoms of arthritis and lupus.



- **Neuroprotective properties:** for the treatment of neurodegenerative diseases, such as Parkinson and ALS (amyotrophic lateral sclerosis).
- **Anti-emetic properties:** for the treatment of nausea and as a remedy for appetite loss.
- **Anti-proliferative properties:** it is noted in several studies that THCA can prevent the growth of prostate cancer cells.
- **Cough suppressant:** THCA is also used in some medicines, such as cough syrups.

Other possible medicinal avenues supported by patient stories include insomnia, muscle spasms, and pain. Unfortunately, we will have to wait for more studies to substantiate all of the above benefits before we can fully understand what THCA means for the future of cannabinoid-based medicines (Rahn, 2015).



TETRAHYDROCANNABINOL (THC)



The “main ingredient of cannabis/ hemp is Tetrahydrocannabinol (THC), which is insoluble in water and soluble in oils, fats, and alcohol” (Rockefeller, 2015). It is psychoactive and responsible for the “high” that is associated with this plant. In a 2004 study conducted by Guzman’s team, they found that THC helped to prevent the formation of new blood vessels that supply blood to tumors (Holland, 2020).

Legal and Medical Approval

Chander (2019) posits that “hemp-made products (with less than 0.3 percent THC) are legal on the federal level, but are still illegal under some state laws. Meanwhile, Holland (2020) adds that approximately “33 States plus Washington DC have passed cannabis-related laws making cannabis with high levels of THC” legal for medical purposes when prescribed by a licensed physician. While THC has medical benefits and is considered safe, consideration of the side effects and interactions with other drugs should be given. You should also know that THC will often show up on drug tests.



BENEFITS OF TETRAHYDROCANNABINOL (THC)

It is a well-known fact that THC is a psychoactive substance found in both hemp and marijuana. However, tetrahydrocannabinol also provides a host of therapeutic properties.

- **Relieves pain:** THC has an analgesic effect. It has proved effective in the relief of mild to severe pain caused by chronic conditions.
- **Relieves nausea and vomiting:** THC has been known to reduce the side effects of chemotherapy, such as nausea and vomiting, since the 1980s. Some medications prescribed to cancer patients contained THC.
- **Increases appetite:** this is a popular benefit of THC. It can stimulate cravings in persons with eating disorders, such as anorexia. Or in individuals with diseases such as cancer and HIV.
- **Aids sleep:** THC is the primary cannabinoid that induces sleep. In the 1970s, a number of studies carried out showed that THC assists those who suffer from sleeping disorders, such as insomnia.
- **Post-traumatic stress disorder:** THC helps to reduce flashbacks in PTSD patients. It interferes with the interaction and processing of information in the hippocampus, the section of the brain that memories are created.

Proof of the therapeutic benefits of THC has led the FDA to officially approve some medications containing tetrahydrocannabinol to treat conditions like nausea and to stimulate appetite (Kalapa clinic, 2020).

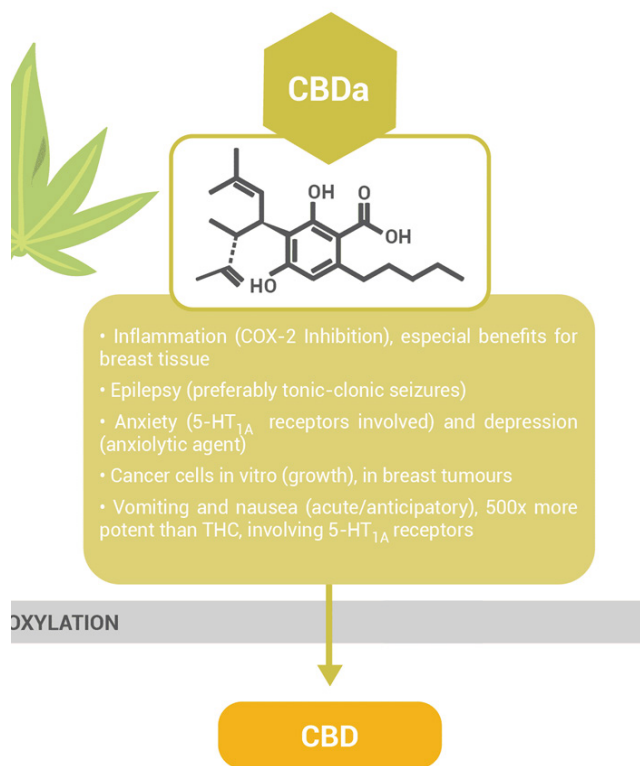


CANNABIDIOLIC ACID (CBDA)

According to science writer Alexander Beadle, “all of the major cannabinoids present in hemp, first develop as the ‘mother of all cannabinoids,’ Cannabidiolic Acid (CBDA).” From there, plant enzymes unique to each cannabis strain convert the CBGA into some varying combination of the three main cannabinoids precursor compounds: Tetrahydrocannabinolic Acid (THCA), Cannabichromenic Acid (CBCA), and Cannabidiol Acid (CBDA).” After CBDA is formed, it is then converted into CBD by thermal decarboxylation. This means that heat causes the molecule to lose its acidic carboxyl group. This process of decarboxylation can happen instantly when the cannabis material is lit and smoked or vaporized, or slowly by degradation over time if the plant material is left to sit at room temperature. Beadle states that despite being abundant in raw hemp, hemp users are not actually exposed to much CBDA (2019).



BENEFITS OF CANNABIDIOLIC ACID (CBDA)



SOURCE: KALAPA CLINIC- Cannabinoid Acids: medical benefits of THCA

CBDA interacts with the endocannabinoid system within our bodies by inhibiting the cyclooxygenase-2 (COX-2) enzyme. COX-2 enzymes cause inflammation to take place after an injury or infection. Hence, by blocking COX-2 enzymes, CBDA aids with **reducing inflammation**. A study carried out with the use of rodents evidenced that CBDA affected serotonin. Serotonin is a chemical produced by nerve cells to help with communication amongst the cells in our bodies. Serotonin is vital to all human functions such as sleeping, eating, digestion, and emotions (Havelka, 2019).

Scientists have found that CBDA can manipulate the serotonin-producing receptors in the body. Meaning, it is possible for CBDA to be used as a remedy for chemotherapy-induced nausea and vomiting and other conditions that induce these symptoms (Havelka, 2019).



CANNABIDIOL (CBD)

Cannabidiol or CBD is one of the most common and well-known substances found in the cannabis product. According to an article in Healthline, CBD is a non-psychoactive cannabinoid, yet it is not intoxicating and non-euphoric, which means that one does not get high on it. This is because the CBD can be extracted from the plant to make products that come without the 'high' or smoke effect (Rahn, 2019).

How Does CBD Work in The Brain And The Body?

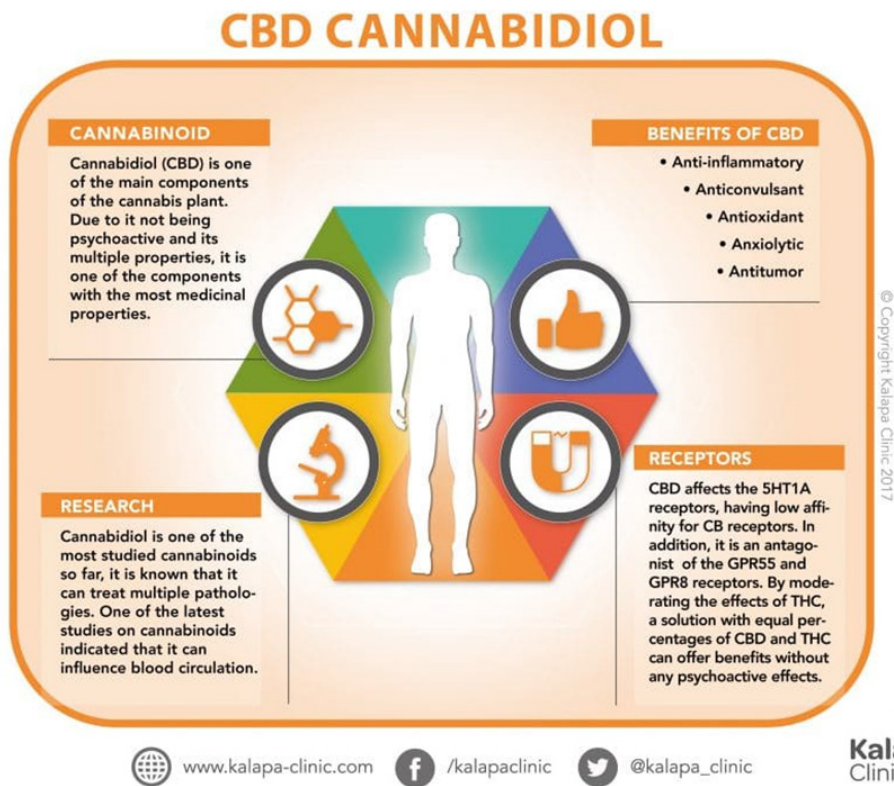
The human body has a set of receptors that interacts with cannabis compounds called cannabinoids, like CBD. These receptors are found throughout the body and comprise the endocannabinoid system (ECS), which is a complex signaling system that ensures that the body maintains homeostasis. This means that the endocannabinoid system keeps human beings balanced by directing the communication traffic within the body. CBD, like some other cannabinoids, mimics the natural compounds produced by the body (Rahn, 2019).

“In the human body, CBD influences cannabinoid receptor activity and encourages the production of the body’s natural endocannabinoids. Interestingly, CBD also affects activity beyond the endocannabinoids system and can also interact with opioid, dopamine, and serotonin receptors. The ability of CBD to interact with so many different systems throughout the body suggests it has the potential to open new frontiers in psychiatry and medicine” (Rahn, 2019).

Chander (2019) argues that “some CBD products are illegal on a federal level, but legal under some 33 State Laws”. The other 17 states have passed laws allowing the use of CBD oil extract with minimal THC. He cautions that non-prescribed CBD products may not be FDA approved and may not be labeled correctly (Chander, 2019).



Benefits of Cannabidiol (CBD)



SOURCE: KALAPA CLINIC- MEDICINAL EFFECTS OF CANNABIDIOL

There is a bit of controversy around CBD. However, with the growing awareness about the possible health benefits of CBD, more persons are gravitating toward it. Here are some of the potential medical uses of CBD:

Anxiety Relief

A particular study noted that CBD in oil form, at a 600mg dose, aided individuals with social anxiety to give a speech. Other early animals studies show that CBD may help relieve anxiety by:



- Improving symptoms of post-traumatic stress disorder (PTSD)
- Reducing stress
- Inducing sleep in cases of insomnia
- Decreasing physiological effects of anxiety, such as an increased heart rate (Cherney, 2020)

Anti-Seizure

A 2016 research done with 214 people diagnosed with epilepsy saw researchers giving participants oral doses of 2 to 5mg of CBD per day in combination with their existing anti-epilepsy medications. Overall, the subjects had 36.5% fewer seizures per month. However, some persons were noted to have adverse effects (Cherney, 2020).

Neuroprotective

CBD products such as its oil are known to may also reduce inflammation that makes neurodegenerative symptoms worse. More research is being carried out to fully understand how exactly CBD decreases the inflammation related to neurodegenerative diseases such as:

- Alzheimer's disease
 - Multiple sclerosis (MS)
 - Parkinson's disease
 - Stroke
- (Cherney , 2020)

Pain Relief

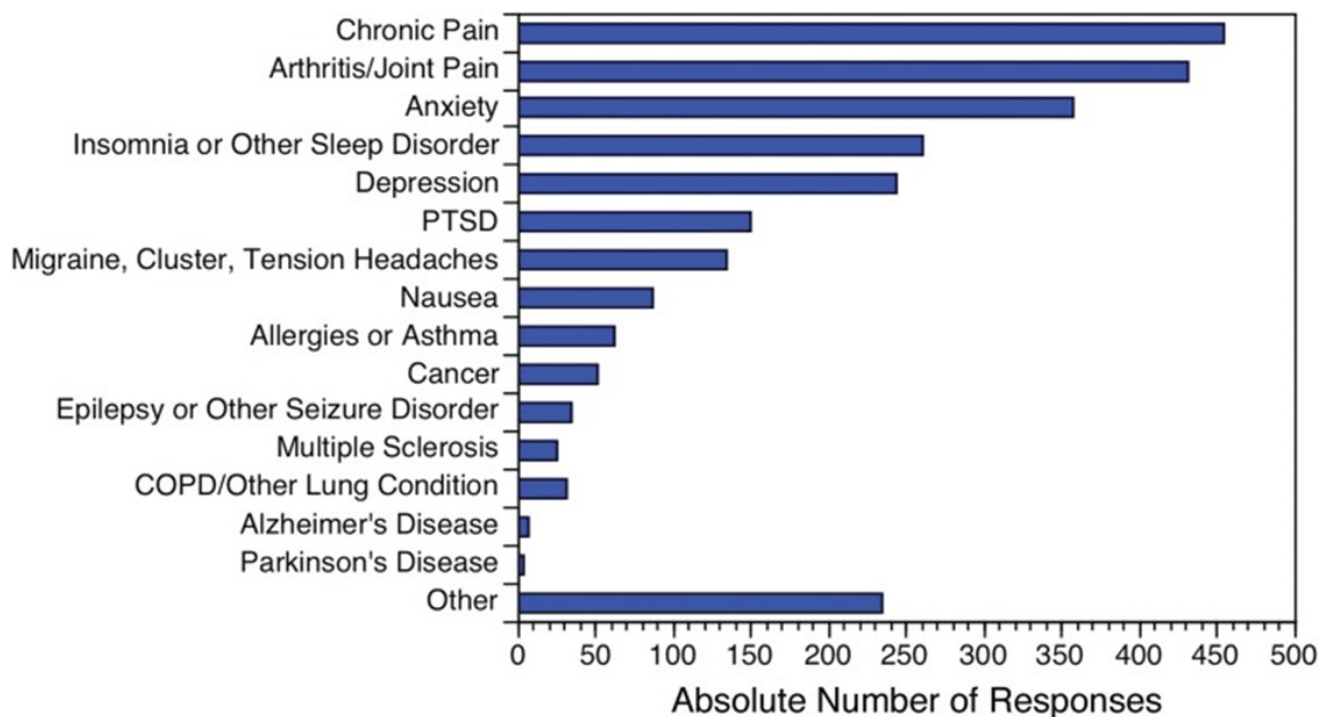
The effects of CBD on the brain's receptors may also help to manage pain. Several pre-clinical trials sponsored by the National Institutes of Health are also looking at the role of CBD in relieving pain caused by:

- Arthritis
- Multiple sclerosis (MS)



- Muscle injuries
 - Spinal cord injuries
- (Cherney , 2020)

Number of medical conditions for which respondents report CBD treating “Very Well by Itself” or “Moderately Well by Itself,” by medical condition



SOURCE: NCBI.COM



CANNABINOL (CBN)

CBN is the cannabinoid that is created by the aging of THC. It is a non-intoxicating compound. Because it is formed from aged THC, CBN typically can be found in high amounts in older cannabis. Many individuals gravitate toward the older cannabis plants for the extraction of CBN due to its varied health benefits and also for recreational use (Earlenbaugh, 2015).

CBN is known as a “sleeper” cannabinoid due to its sedative effects. CBN’s well-defined sedative characteristic is what makes it so unique and different from the other cannabinoids. However, there is so much that we can learn about CBN’s make-up, its uses, and its benefits (Earlenbaugh, 2015).

Is CBN Legal?

A prime question that surrounds all cannabinoids is its legality in the United States of America. How are federal and state governments treating cannabinol?

Products derived from, or that have some amount of CBN in them are legal at the federal level in the United States. This is understandable because they do not have a high concentration of Tetrahydrocannabinol (THC). It is best to check the regulations by the specific state that you are in, as some states have different laws concerning the extraction, sale, and use of CBN products. To be on the safe side, we recommend that you do a double and maybe a triple check as well. Some countries within Europe, such as the United Kingdom, have deemed CBN as a controlled substance; hence the sale and use of it are illegal (CBN oil, 2020).

How Does CBN Work?

Each cannabinoid within the hemp plant executes its benefits via several mechanisms of action. As well, they have many routes which they can take to produce therapeutic and other effects. There is not a lot of research done on the CBN cannabinoid. However, this is changing as more individuals have developed a growing interest in the effects of CBN. Cannabinol interacts with the endocannabinoid system within the body. The endocannabinoid system allows it to increase or decrease the activity of numerous hormones and neurotransmitters. Doing so permits CBN to affect energy, mood, appetite, cognition, focus, immune function, and pain (Breus, 2019).



BENEFITS OF CANNABINOL (CBN)

Anti-Insomnia

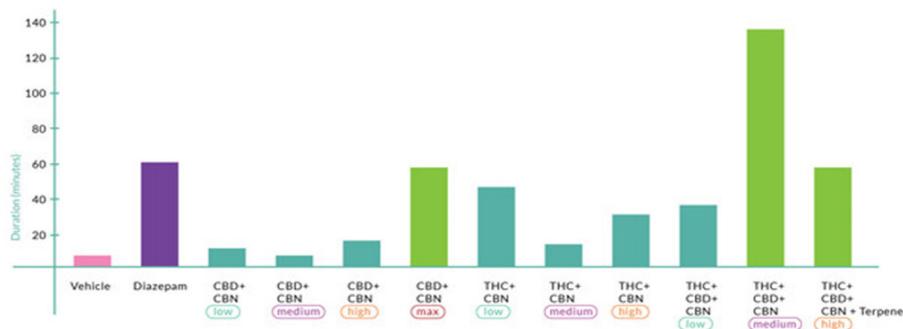
Currently, we were able to find only one study relating to CBN as a sedative. This study was made public in 1975. It was carried out on five (5) subjects and only tested CBN in conjunction with tetrahydrocannabinol (THC), the main psychoactive compound in cannabis.

“THC may be responsible for the sedative effects. One reason why people may have made the connection between CBN and sleep is that CBN is more prominent in old cannabis flowers. After being exposed to air for long periods, tetrahydrocannabinolic acid (THCA) turns into CBN. Anecdotal evidence suggests that aged cannabis tends to make people sleepy, which could explain why some people associated CBN with more sedating effects. However, we don’t know for sure if CBN is the cause, so if you find that an aged bag of long-forgotten cannabis makes you sleepy, it could be because of other factors” (Ferguson, 2020).

The graph shows the sleep duration achieved by Kanabo Research’s formulations. The green marked formulation demonstrates the highest efficacy compared to Diazepam.



KANABO'S PATENT PENDING FORMULATIONS COMPARED TO STANDARD OF CARE (DIAZEPAM) FOR SLEEP DISORDERS



SOURCE: PR NEWSWIRE



Pain Reliever

In addition to being a sleep aid, CBN is believed to relieve pain. A research was carried out using rats in 2019. The study proved that CBN was able to reduce the discomfort in the rats. Due to the impressive results seen, the researchers concluded that CBN may effectively soothe pain in conditions such as fibromyalgia. CBN acts by releasing peptides that activate a mechanism to reduce pain (Ferguson, 2020).

Appetite Stimulant

Researchers with the use of rats have proved that CBN can stimulate appetite. Appetite stimulation is extremely helpful to those who are diagnosed with chronic conditions that result in appetite loss. The result of the study is as follows

“Cannabinol induced a CB(1)R-mediated increase in appetitive behaviors via significant reductions in the latency to feed and increases in consummatory behaviors via increases in meal 1 size and duration. Cannabinol also significantly increased the intake during hour 1 and total chow consumed during the test. Conversely, cannabidiol significantly reduced total chow consumption over the test period. Cannabigerol administration induced no changes to feeding behavior” (Ferguson, 2020).

Neuroprotectant

CBN has neuroprotective potential. A study that was conducted in 2005 using rats as subjects shows that CBN is able to slow down the onset of amyotrophic lateral sclerosis (ALS) (Ferguson, 2020).

Antibacterial

CBN has been proven to have antibacterial properties. In 2008, researchers carried out a study to determine how effective CBN is against drug-resistant bacteria, such as the MRSA bacteria. The results of the study evidenced that CBN efficiently eliminated MRSA bacteria (Ferguson, 2020).



CANNABIGEROL (CBG)

CBG, a cannabinoid in hemp, is a product of CBGA. CBGA is an acidic version of CBG. Nearly all of the CBGA within a cannabis or hemp plant diminishes as the plant grows. The CBGA is depleted because it is converted to CBDA and THCA. When the plant reaches maturity, there is only about 1% of CBG left in it. But with the increased demand for CBG derived products, the persons who farm hemp are working toward producing CBG-heavy strains of the plant. Similarly to its companions, CBG has the ability to affect our bodies in several ways, causing the interest in CBG to grow, and we suspect that it will continue to blossom as persons are looking to discover more about CBG (Canna connection, 2020).

IS CBG LEGAL?

Firstly, we recommend that you check with your specific state or country to see what their laws say about the sale or use of CBG. However, CBG is not acknowledged as a psychotropic substance by the UN Convention. In the United States, it is not among the prohibited substances named by the Controlled Substances Act. CBG is not regarded as an illegal substance in most counties (Canna connection, 2020).

HOW DOES CBG WORK?

All cannabinoids are acted on by the endocannabinoid system regardless of it being THC, CBD, CBG, or any other form. As we learned earlier, each cannabinoid is processed differently. In the case of CBG, it attaches itself to CB2 receptors located within the nervous system, connective tissues, and the gut. Scientists are just starting to understand its full mechanism of action (Way of leaf, 2020).



THE BENEFITS OF CBG

	THC	CBD	CBG
Relieves Pain <i>Analgesic</i>	●	●	
Suppresses appetite/Helps with weight loss <i>Anorectic</i>		●	
Kills or slows bacteria growth <i>Antibacterial</i>		●	●
Reduces blood sugar levels <i>Anti-diabetic</i>		●	
Reduces vomiting and nausea <i>Anti-emetic</i>	●	●	
Reduces seizures and convulsion <i>Anti-epileptic</i>		●	
Treats fungal infection <i>Antifungal</i>			
Reduces inflammation <i>Anti-inflammatory</i>		●	●
Aids sleep <i>Anti-insomnia</i>			
Reduces risk of artery blockage <i>Anti-ischemic</i>		●	
Inhibits cell growth in tumors/cancer cells <i>Anti-proliferative</i>		●	●
Treats psoriasis <i>Anti-psoriatic</i>		●	
Tranquilizing, used to manage psychosis <i>Antipsychotic</i>		●	
Suppresses muscle spasms <i>Antispasmodic</i>	●	●	
Relieves anxiety <i>Anxiolytic</i>		●	
Simulates appetite <i>Appetite Stimulant</i>	●		
Promotes bone growth <i>Bone Stimulant</i>		●	●
Reduces function in the immune system <i>Immunosuppressive</i>		●	
Reduces contractions in the small intestines <i>Intestinal Anti-prokinetic</i>		●	
Protects nervous system degeneration <i>Neuroprotective</i>		●	

SOURCE: blisscannabis.wordpress.com

CBG does not have any psychotropic properties. As a result, using it will not cause you to become “high”. Research has shown that many conditions and illnesses can be treated with CBD. Let’s take a look at how CBG can be of great benefit to the body.

Pain Reliever

Even though there is not a lot of research on CBG, the ones that have been conducted show that CBG can be used as an effective pain reliever. A study was done on the brain of a rodent in 2010. The study revealed that cannabigerol treats pain by acting as an alpha-2 adrenoceptor. A medical review of this theory was carried out, the team arrived at the same conclusion. A



much earlier study conducted in 1991 found that CBG is an even more potent pain reliever than THC (Canna connection, 2020).

Relieve Glaucoma Symptoms



In 1990, the Department of Ophthalmology at West Virginia University explored the possibility of CBG and THC combating the signs and symptoms of glaucoma. The study was carried out on cats; their objective was to find out if cannabinoids could efficiently reduce intraocular pressure in the eyes. As expected, both CBG and THC were successful in decreasing intraocular pressure. Each cannabinoid was administered to the corneas by the

use of osmotic minipumps. The fact that CBG was able to accomplish this, researchers explain, is a sign that it could be used to treat glaucoma (Canna connection, 2020).

Reduces Inflammation

Inflammatory bowel disease (IBD) is a common condition that many persons are diagnosed with worldwide. As a result, scientists are always looking at new ways to remedy the disease. A study was conducted on mice by the Department of Pharmacology at the University of Naples to determine if and how CBG can be used against IBD. The results of their study were published in 2013, it states that

“CBG was able to weaken murine colitis, and decrease nitric oxide production in macrophages”.

Based on this outcome, it was theorized that CBG should be considered as an experimental inflammatory bowel disease treatment (Canna connection, 2020).



CANNABICHROMENE (CBC)



Most persons have never heard of cannabichromene, also known as CBC. It was identified more than fifty (50) years ago. CBC is often referred to as one of the “big six” cannabinoids distinguished in medical research. However, it has not received the level of recognition that it deserves. Cannabichromene’s benefits are very promising. CBC, much like THC and CBD originates from cannabigerolic acid (CBGA). Cannabis plants produce CBGA, which is the precursor to three major cannabinoids: tetrahydrocannabinolic acid (THCA), cannabidiolic acid (CBDA), and cannabichromenic acid (CBCA). The specific plant enzymes cascade and “usher” the breakdown product into one of the three lines. To be converted from CBGA into cannabichromene, CBGA turns into carboxylic acid (CBCA), and then eventually to CBC due to repeated exposure to heat or ultraviolet light (Havelka, 2017).



MEDICINAL BENEFITS OF CBC

CBC has been proven to be very helpful in combating certain illnesses and discomforts. Below you will find some of its many therapeutic benefits.

Fights Cancer

Cannabichromene has been said to be a potential cancer killer. This may be possible due to its interaction with the body's natural endocannabinoid, anandamide. A recent study done with mice has shown that

"CBC also appears to inhibit the uptake of anandamide, allowing it to remain longer in the bloodstream. It further proved that cannabinoids might be effective in inhibiting both inflammation and tumor growth. Since anandamide has been shown to fight breast cancer in vitro and in vivo, this shows promise that CBC and other cannabinoids might one day be a chemopreventive agent."

In 2006, the first mention of CBC as a potential cancer fighter was made. It was as a result of a study that looked at other cannabinoids to see if any other than THC could be effective against cancer. To date, other studies and researches have revealed that CBC is the second-strongest cannabinoid at preventing the proliferation of new cancer cells (Havelka, 2017).

Reduces Pain and Inflammation

Collagen-induced osteoarthritis typically results in pain and inflammation. These symptoms can be treated with CBC. It combats inflammation using a mechanism of action that differs from that of the non-steroidal anti-inflammatory drugs (NSAIDs). Additionally, CBC does not have the side effects of those medications. When CBC is combined with THC, they prove to be much more effective against inflammation together than by themselves (Havelka, 2017).

Simulates Brain Cells

A study conducted on mice in 2013 revealed that CBC has a positive effect on neural stem progenitor cells (NSPCs). This cell is required for healthy brain function. The study shows that



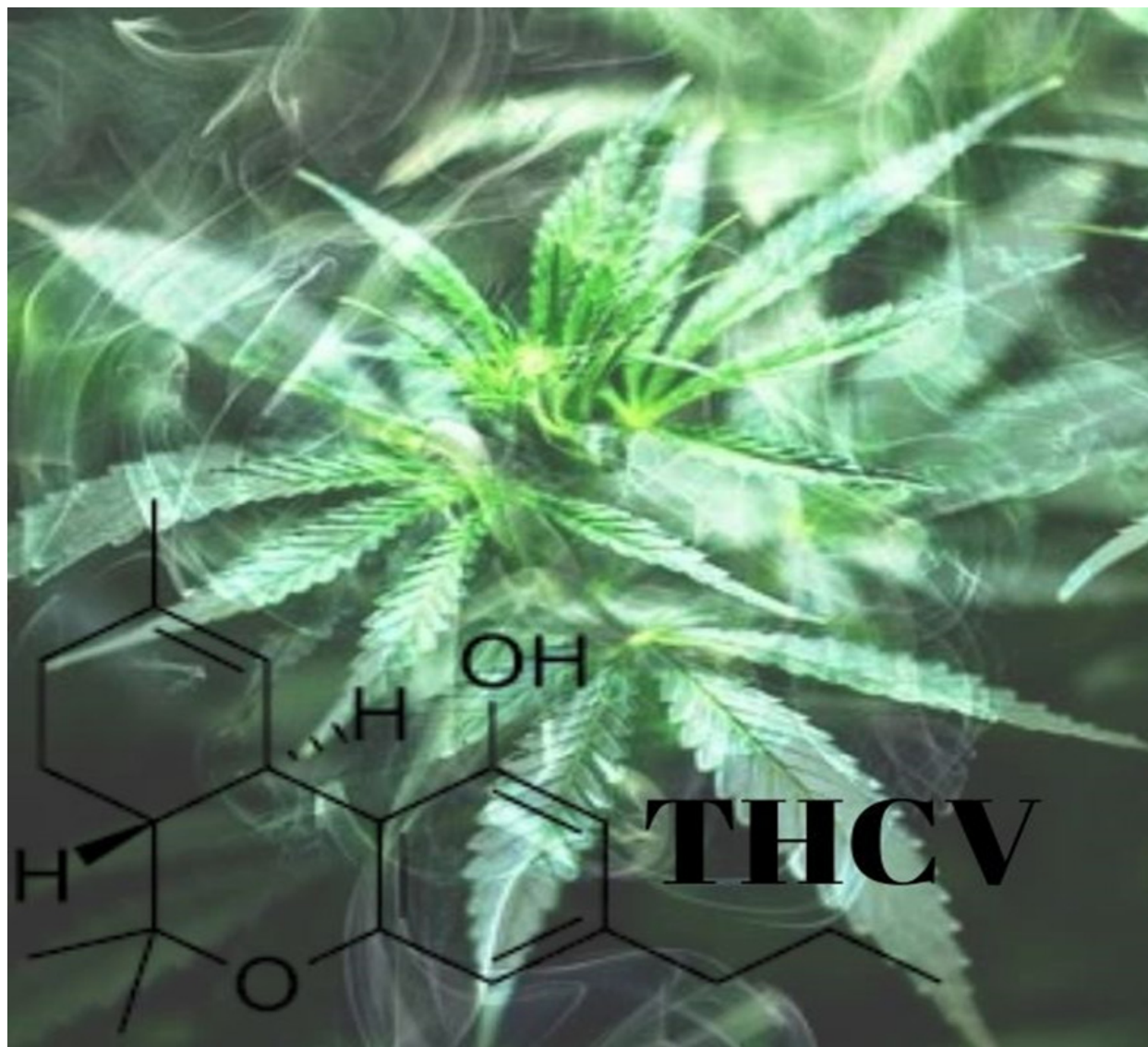
NSPCs became more effective when CBC was introduced to the body. CBC is contributing to a vital process as NSPCs mature into astroglial cells. They are quite essential for maintaining brain homeostasis. Functions such as neurotransmitter direction and defending against oxidative stress are carried out by astroglial cells. The cells also fight inflammation and toxicity that may lead to neurological diseases and brain pathologies like Alzheimer's disease (Havelka, 2017).

Combats Acne

A study was conducted on the efficacy of CBD against acne. The same research team then researched the potential of other cannabinoids to prevent or treat acne. Needless to say that CBC was shown to be a powerful inhibitor of acne. Acne is identifiable by its excess sebum production and sebaceous gland inflammation. As we already know that CBC has great anti-inflammatory properties; it is able to treat acne. According to the research, CBC also reduced levels of arachidonic acid (AA), which is needed to create lipogenesis. More research is needed, but CBC might just one day become a very well-known anti-acne treatment (Havelka, 2017).



TETRAHYDROCANNABIVARIN (THCV)



Let us officially introduce this amazing compound. THCV, or tetrahydrocannabivarin, is a substance in hemp that offers medical benefits unlike that which are offered by other cannabinoids like THC and CBD. THCV is great for medical marijuana patients seeking relief or a casual consumer chasing a specific effect. THCV is definitely going to increase the viability of the medicinal potential of cannabinoids (Rahn, 2015).



BENEFITS OF TETRAHYDROCANNABIVARIN (THCV)

THCV is an antioxidant, and although not as well-known as other cannabinoids, offers several health benefits. It is currently being researched to determine if it has the potential to remedy some hard-to-treat conditions. We will take a closer look at the benefits of THCV to help you gain a clearer understanding of this cannabinoid.

Appetite Suppressant

THCV is an appetite suppressant. Opposite to the effects of THC, THCV may reduce the appetite. Appetite reduction is a benefit that is welcomed by consumers who are focused on weight loss. However, persons being treated for appetite loss or anorexia should avoid the use of THCV (Rahn, 2015).

Fights Diabetes

THCV may help with the treatment of diabetes. Studies have indicated that it has the potential to manage blood sugar levels and decrease insulin resistance. These benefits are quite essential for individuals who are diagnosed with diabetes. THCV is currently the subject of various pharmaceutical trials as a remedy for type 2 diabetes (Rahn, 2015).

Reduces Panic Attacks

THCV can potentially decrease the frequency of panic attacks that one faces. Also, It controls anxiety attacks in PTSD patients without overpowering the patient's emotions (Rahn, 2015).

Neuroprotective Properties

Research suggests that signs and symptoms such as reduced motor control, tremors, and brain lesions associated with Alzheimer's are improved by THCV. The compound's neuroprotective



properties and its ability to block CB1 receptors and activate CB2 receptors have allowed it to become a favorable candidate for treating or delaying symptoms of Alzheimer's, Parkinson's disease, and other neurodegenerative symptoms and illnesses (Rahn, 2015).

Stimulates Bone Growth

THCV is known as a stimulant of bone growth. THCV is being researched as a possible treatment for conditions such as osteoporosis because it promotes the development of new bone cells. Also, THCV can provide increased bone health as a result of cannabinoid receptors being located throughout our skeletal system (Rahn, 2015).



CONCLUSION

Cannabinoids are naturally occurring chemical compounds that are unique to the hemp plant. It is known for its positive and negative impact on humans. It is that substance that can give a psychoactive high, that euphoria, and also those therapeutic medical benefits after prescribed use or consumption. Cannabinoids are similar to the endocannabinoids found naturally in human beings.

The question can be asked, does the body need cannabinoids? Well, research has shown that cannabinoids in the body are responsible for regulating cell communication, in so far, as to how they send, receive, or process messages. Comprehensive studies have also shown that several cannabinoids have therapeutic and medical benefits to humans. Cannabinoids that are produced in the body have an anti-inflammatory effect. This is because they, along with the body's endocannabinoids, seem to play an important role in regulating the inflammatory processes.

Get to know your cannabinoids and see how they can work for you! Observe your state's laws on the legality of the respective cannabinoids, stay safe, and use them correctly.



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