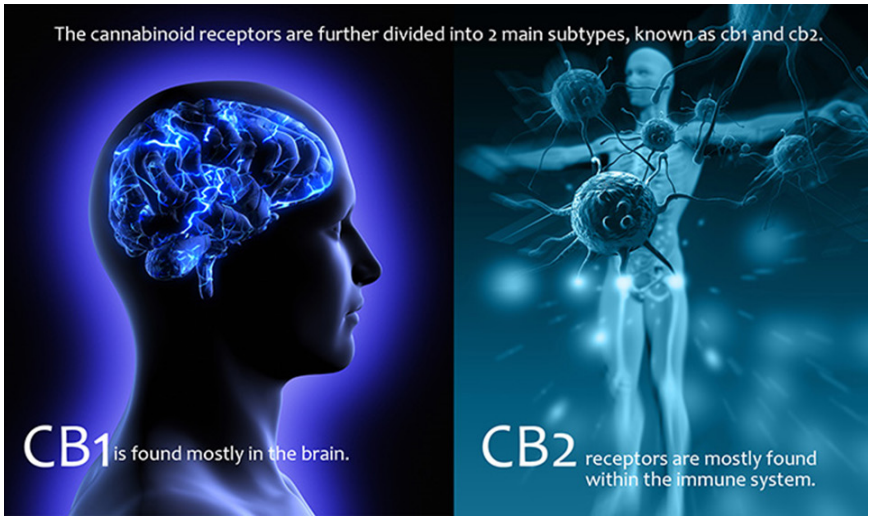


INTRODUCTION TO THE ENDOCANNABINOID SYSTEM



One of the most fundamental things you need to know about working in the CBD field is a basic understanding of the Endocannabinoid System, and the importance it plays in maintaining health. At the base level of this understanding is the reason WHY products such as ours can impact the health and wellbeing of people and pets.

The following article by Dr. Sulak does a marvelous job of explaining this recently discovered biological system. Please read and answer the questions at the end.

By Dustin Sulak, DO / Healer.com

As you read this review of the scientific literature regarding the therapeutic effects of cannabis and cannabinoids, one thing will become quickly evident: cannabis has a profound influence on the human body. This one herb and its variety of therapeutic compounds seem to affect every aspect of our bodies and minds. How is this possible?

At our integrative medical clinics in Maine and Massachusetts, my colleagues and I treat over 18,000 patients with a huge diversity of diseases and symptoms. In one day I might see cancer, Crohn's disease, epilepsy, chronic pain, multiple sclerosis, insomnia, Tourette's syndrome

and eczema, just to name a few. All of these conditions have different causes, different physiologic states, and vastly different symptoms. The patients are old and young. Some are undergoing conventional therapy. Others are on a decidedly alternative path. Yet despite their differences, almost all of my patients would agree on one point: cannabis helps their condition.

As a physician, I am naturally wary of any medicine that purports to cure-all. Panaceas, snake-oil remedies, and expensive fads often come and go, with big claims but little scientific or clinical evidence to support their efficacy. As I explore the therapeutic potential of cannabis, however, I find no lack of evidence. In fact, I find an explosion of scientific research on the therapeutic potential of cannabis, more evidence than one can find on some of the most widely used therapies of conventional medicine.

At the time of updating (February 2015), a PubMed search for scientific journal articles published in the last 20 years containing the word “cannabis” revealed 8,637 results. Add the word “cannabinoid,” and the results increase to 20,991 articles. That’s an average of more than two scientific publications per day over the last 20 years! These numbers not only illustrate the present scientific interest and financial investment in understanding more about cannabis and its components, but they also emphasize the need for high quality reviews and summaries such as the document you are about to read.

How can one herb help so many different conditions? How can it provide both palliative and curative actions? How can it be so safe while offering such powerful effects? The search to answer these questions has led scientists to the discovery of a previously unknown physiologic system, a central component of the health and healing of every human and almost every animal: the endocannabinoid system.

What Is The Endocannabinoid System?

The endogenous cannabinoid system, named after the plant that led to its discovery, is perhaps the most important physiologic system involved in establishing and maintaining human health. Endocannabinoids and their receptors are found throughout the body: in the brain, organs, connective tissues, glands, and immune cells. In each tissue, the cannabinoid system performs different tasks, but the goal is always the same: homeostasis,

the maintenance of a stable internal environment despite fluctuations in the external environment.

Cannabinoids promote homeostasis at every level of biological life, from the sub-cellular, to the organism, and perhaps to the community and beyond. Here's one example: autophagy, a process in which a cell sequesters part of its contents to be self-digested and recycled, is mediated by the cannabinoid system. While this process keeps normal cells alive, allowing them to maintain a balance between the synthesis, degradation, and subsequent recycling of cellular products, it has a deadly effect on malignant tumor cells, causing them to consume themselves in a programmed cellular suicide. The death of cancer cells, of course, promotes homeostasis and survival at the level of the entire organism.

Endocannabinoids and cannabinoids are also found at the intersection of the body's various systems, allowing communication and coordination between different cell types. At the site of an injury, for example, cannabinoids can be found decreasing the release of activators and sensitizers from the injured tissue, stabilizing the nerve cell to prevent excessive firing, and calming nearby immune cells to prevent release of pro-inflammatory substances. Three different mechanisms of action on three different cell types for a single purpose: minimize the pain and damage caused by the injury.

The endocannabinoid system, with its complex actions in our immune system, nervous system, and all of the body's organs, is literally a bridge between body and mind. By understanding this system we begin to see a mechanism that explains how states of consciousness can promote health or disease.

In addition to regulating our internal and cellular homeostasis, cannabinoids influence a person's relationship with the external environment. Socially, the administration of cannabinoids clearly alters human behavior, often promoting sharing, humor, and creativity. By mediating neurogenesis, neuronal plasticity, and learning, cannabinoids may directly influence a person's open-mindedness and ability to move beyond limiting patterns of thought and behavior from past situations. Reformatting these old patterns is an essential part of health in our quickly changing environment.

What Are Cannabinoid Receptors?

Sea squirts, tiny nematodes, and all vertebrate species share the endocannabinoid system as an essential part of life and adaptation to environmental changes. By comparing the genetics of cannabinoid receptors in different species, scientists estimate that the endocannabinoid system evolved in primitive animals over 600 million years ago.

While it may seem we know a lot about cannabinoids, the estimated twenty thousand scientific articles have just begun to shed light on the subject. Large gaps likely exist in our current understanding, and the complexity of interactions between various cannabinoids, cell types, systems and individual organisms challenges scientists to think about physiology and health in new ways. The following brief overview summarizes what we do know.

Cannabinoid receptors are present throughout the body, embedded in cell membranes, and are believed to be more numerous than any other receptor system. When cannabinoid receptors are stimulated, a variety of physiologic processes ensue. Researchers have identified two cannabinoid receptors: CB1, predominantly present in the nervous system, connective tissues, gonads, glands, and organs; and CB2, predominantly found in the immune system and its associated structures. Many tissues contain both CB1 and CB2 receptors, each linked to a different action. Researchers speculate there may be a third cannabinoid receptor waiting to be discovered.

Endocannabinoids are the substances our bodies naturally make to stimulate these receptors. The two most well understood of these molecules are called anandamide and 2-arachidonoylglycerol (2-AG). They are synthesized on-demand from cell membrane arachidonic acid derivatives, have a local effect and short half-life before being degraded by the enzymes fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL).

Phytocannabinoids are plant substances that stimulate cannabinoid receptors. Delta-9-tetrahydrocannabinol, or THC, is the most psychoactive and certainly the most famous of these substances, but other cannabinoids such as cannabidiol (CBD) and cannabinol (CBN) are gaining the interest of researchers due to a variety of healing properties. Most phytocannabinoids have been isolated from *cannabis sativa*, but

other medical herbs, such as echinacea purpura, have been found to contain non-psychoactive cannabinoids as well.

Interestingly, the cannabis plant also uses THC and other cannabinoids to promote its own health and prevent disease. Cannabinoids have antioxidant properties that protect the leaves and flowering structures from ultraviolet radiation - cannabinoids neutralize the harmful free radicals generated by UV rays, protecting the cells. In humans, free radicals cause aging, cancer, and impaired healing. Antioxidants found in plants have long been promoted as natural supplements to prevent free radical harm.

Laboratories can also produce cannabinoids. Synthetic THC, marketed as dronabinol (Marinol), and nabilone (Cesamet), a THC analog, are both FDA approved drugs for the treatment of severe nausea and wasting syndrome. Some clinicians have found them helpful in the off-label treatment of chronic pain, migraine, and other serious conditions. Many other synthetic cannabinoids are used in animal research, and some have potency up to 600 times that of THC.

Cannabis, The Endocannabinoid System, And Good Health

As we continue to sort through the emerging science of cannabis and cannabinoids, one thing remains clear: a functional cannabinoid system is essential for health. From embryonic implantation on the wall of our mother's uterus, to nursing and growth, to responding to injuries, endocannabinoids help us survive in a quickly changing and increasingly hostile environment. As I realized this, I began to wonder: can an individual enhance his/her cannabinoid system by taking supplemental cannabis? Beyond treating symptoms, beyond even curing disease, can cannabis help us prevent disease and promote health by stimulating an ancient system that is hard-wired into all of us?

I now believe the answer is yes. Research has shown that small doses of cannabinoids from cannabis can signal the body to make more endocannabinoids and build more cannabinoid receptors. This is why many first-time cannabis users don't feel an effect, but by their second or third time using the herb they have built more cannabinoid receptors and are ready to respond. More receptors increase a person's sensitivity to cannabinoids; smaller doses have larger effects, and the individual has an enhanced baseline of endocannabinoid activity. I believe that small, regular doses of cannabis might act as a tonic to our most central

physiologic healing system.

Many physicians cringe at the thought of recommending a botanical substance, and are outright mortified by the idea of smoking a medicine. Our medical system is more comfortable with single, isolated substances that can be swallowed or injected. Unfortunately, this model significantly limits the therapeutic potential of cannabinoids.

Unlike synthetic derivatives, herbal cannabis may contain over one hundred different cannabinoids, including THC, which all work synergistically to produce better medical effects and less side effects than THC alone. While cannabis is safe and works well when smoked, many patients prefer to avoid respiratory irritation and instead use a vaporizer, cannabis tincture, or topical salve. Scientific inquiry and patient testimonials both indicate that herbal cannabis has superior medical qualities to synthetic cannabinoids.

In 1902 Thomas Edison said, “There were never so many able, active minds at work on the problems of disease as now, and all their discoveries are tending toward the simple truth that you can’t improve on nature.” Cannabinoid research has proven this statement is still valid.

So, is it possible that medical cannabis could be the most useful remedy to treat the widest variety of human diseases and conditions, a component of preventative healthcare, and an adaptive support in our increasingly toxic, carcinogenic environment? Yes. This was well known to the indigenous medical systems of ancient India, China, and Tibet, and as you will find in this report, is becoming increasingly well known by Western science. Of course, we need more human-based research studying the effectiveness of cannabis, but the evidence base is already large and growing constantly, despite the DEA’s best efforts to discourage cannabis-related research.

Does your doctor understand the benefit of medical cannabis? Can he or she advise you in the proper indications, dosage, and route of administration? Likely not. Despite the two largest U.S. physician associations (American Medical Association and American College of Physicians) calling for more research, the U.S. Congress prohibiting federal interference in states’ medical cannabis programs, a 5,000 year history of safe therapeutic use, and a huge amount of published research, most doctors know little or nothing about medical cannabis.

This is changing, in part because the public is demanding it. People want safe, natural and inexpensive treatments that stimulate our bodies' ability to self-heal and help our population improve its quality of life. Medical cannabis is one such solution. This summary is an excellent tool for spreading the knowledge and helping to educate patients and healthcare providers on the scientific evidence behind the medical use of cannabis and cannabinoids.

CANNABIS: THE CHEMISTRY BEHIND THE CALM

Most of us probably took biology at some point in high school – as our teacher droned on and on about mitosis or meiosis or cow retinas, we fiddled with our phones or, if we're of a certain age, doodled in our Trapper Keepers. Biology, it turns out, isn't the most exciting thing in the world. But, when it involves marijuana, the thrill climbs just a little higher.

The biology of marijuana is dominated by cannabinoids, the chemical compounds the cannabis flower secretes. THC and CBD, for instance, are cannabinoids. The effects of marijuana are a result of these chemicals. In fact, if it weren't for cannabinoids, pot wouldn't be pot at all; it'd be something only botanists found interesting. And maybe people with a leaf fetish.

How Cannabinoids Work

Cannabinoids work by imitating compounds our bodies produce naturally. These natural compounds, called endocannabinoids, help regulate many functions of the body. Endocannabinoids bind to cannabinoid receptors, which are found in most parts of the brain as well as the immune system. They play a role in everything from immune response to bone growth, from blood pressure to sleep.

When endocannabinoids all work together, the body is balanced and healthy. On the other hand, when they fight amongst themselves, medical conditions arise out of the chaos.

Endocannabinoids, as well as their receptors, make up the endocannabinoid system. This system is found in even the most primitive organisms, suggesting that, in the grand scheme of things, it's probably pretty important.

Interestingly, cannabinoids aren't limited to their receptors: some are independent chemicals, hell bent to make it on their own. Certain cannabinoids are wonderful anti-oxidants while others, not binding to the receptors themselves, are bossy enough to dictate how other cannabinoids bind.

A Closer Look

For anyone hoping to truly nerd-out, hold on to your microscope because here we go! Cannabinoids weren't discovered until the 1980s when a scientist spotted them wearing very short shorts and dancing to Wham. Or maybe they were really discovered through radioimmunoassay techniques used on a rat brain. You be the judge.

Before their discovery, it was believed that cannabinoids produced their effects by interacting with cell membranes, rather than interacting with the membrane receptors. Only two types of cannabinoid receptors are presently known: CB1 and CB2 (they're named by scientists, not wordsmiths). They're located throughout the human body as well as the bodies of other mammals, fish, birds, and reptiles.

Different cannabinoids bond to different receptors, producing different results (and it's likely that there are more than two receptor types – they just haven't been discovered yet).

Cannabis contains at least 85 different cannabinoids (and probably several others).

Strains are continuously being created to deliver larger doses of certain chemicals in hopes of offering relief for specified symptoms.

Cannabinoids can be ingested a few different ways. They can be inhaled, vaporized, or consumed orally. They can also be injected, placed under the tongue, or administered via transdermal patch. For people looking for something truly new, they can even be used as a rectal suppository. Once they enter the body, they are metabolized the same place as most drugs: the liver. Some cannabinoids are stored in fat as well, which is one of the reasons a positive drug test can occur several weeks after ingestion.

Cannabinoids and Cancer

If there is one disease begging for a cure, it's cancer: the C word. A malady that knows no boundaries, it attacks the young and old, the fit and feeble. It's also elusive, sometimes going into remission only to rear its ugly head again down the line. While chemotherapy and radiation have extended lives and offered cures, they aren't always effective. This has lead scientists to look at cannabinoids.

Studies suggest that cannabinoids are beneficial to cancer patients in a

few ways. According to the American Cancer Society, those who took marijuana extracts during clinical trials tended to need less opiates for pain control. There may be a more direct perk, too:

In some experiments, THC and CBD have either slowed tumor growth or induced death of cancer cells when introduced inside laboratory dishes.

How this affects human tumors is yet to be determined, which is why treating cancer with marijuana alone isn't advocated. Ten years from now? Who knows.

Of course, cannabinoids may also prevent cancer from occurring in the first place. Recent studies point their fingers at a main cause of cancer: inflammation. Chronic inflammation has the potential to damage DNA, providing a foundation on which tumors build. This explains why cigarette smokers are more prone to lung cancer, why people with ulcerative colitis are more prone to colon cancer, why people with heartburn are more prone to esophageal cancer (and so on and so on).

Luckily, many things prevent inflammation. Exercise, a healthy BMI, and certain foods (like olive oil, tomatoes, fish, fruit, and curry) help prevent it. Straight from the "Best News Ever" section, chocolate is also an anti-inflammatory (dark chocolate offers the most benefit by far). Your immune system prevents inflammation, too. This isn't to say you need to live in a bubble, but maybe don't go around licking petri dishes, either.

From a medicinal standpoint, aspirin gets a gold star. Per MD Anderson, it not only reduces the risk of cancer, but it also slows certain cancers and keeps others from coming back. It does this by, you guessed it, fighting inflammation. Since cannabinoids also fight inflammation, it's theorized that they provide a similar benefit. It makes sense, after all.

Too Good to be True?

Even with science's backing, naysayers will always exist. For some, the potential link between marijuana and a cancer cure is too simple to be true. But history shows us that it happens. In 1928, the scientist Alexander Fleming discovered penicillin by accident. His discovery is largely hailed as the most important of the 20th century for one reason: it's already saved around 200 million lives.

In the end, sometimes it really is that easy. Sometimes the answer you've been searching for was planted right in front of you all along.

- Jenn Keeler | September 21, 2016 | Wikileaf

IS CBD FROM MARIJUANA PLANTS REALLY BETTER?



A few months ago, I made a sales call on a local marijuana dispensary. I presented our product line to one of the management staff who was quite taken with the overall look and product quality. But then he said to me “Look. I gotta be honest. Your product line looks great, but products made from hemp just aren’t as good as products made from marijuana”. Is he right? This seems to be a perception held not only by this young man, but promulgated by a host of so-called ‘experts’ in the marijuana industry. The short answer is an emphatic “NO”.

Allow me to explain. First, one must understand that hemp, along with its “cousin”, the modern marijuana plant, are both nearly identical genetically, and are the same genus of plant...the only difference being in the amount of THC propagated in the plants themselves. Industrial hemp, by definition, has less than 0.3% THC by dry weight. Plants grown as marijuana have significantly greater. One study from Colorado showed that average marijuana plant currently cultivated in Colorado contains 18.7% THC.

And THC AND CBD, whether from hemp or marijuana plants are the identical chemical compounds. Period. End of discussion. Simply because CBD is refined from marijuana doesn’t make it better. It’s a fallacy and a chemical impossibility. The chemical molecules are identical. What is different is the amount of CBD and THC in the plants

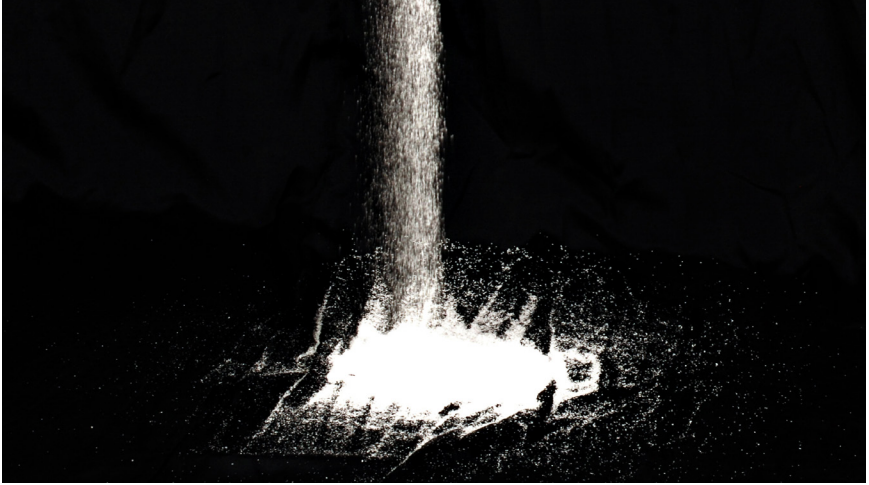
themselves. You see. Marijuana plants are cultivated to contain high levels of THC and low levels of CBD (CBD actually can “interfere” with the desired THC “high”), while hemp cultivars are grown to be naturally low in THC and high in CBD and other vital cannabinoids.

And while you can isolate CBD from marijuana plants, you have to remove the THC, usually through the process of heating the oil. This “heating” process can lead to damage of other cannabinoids and create a less-optimal product. And while THC does provide some limited benefits (that’s a discussion for another time), for the vast majority of people looking to improve their health, it’s the CBD and other cannabinoids that really pack the punch. And let’s face it...while some folks do want the “high” associated with THC, our customers, and those generally in the market for CBD don’t!

But while all CBD is created equally, not all hemp is. At im.bue, we utilize only our organically-grown Colorado hemp, specifically grown to be high in CBD and extremely low in THC. We grow in fields used for human-consumable crops, and most important, we grow at high altitudes (7600 feet to be precise) to maximize sun exposure, which can increase the amount of cannabinoids. Finally, we process our hemp using low temperature and low pressure to preserve the natural plant qualities. So while chemically CBD is CBD is CBD, whether from marijuana or hemp, there are other factors one should consider in selecting a CBD product, such as those above. At im.bue, we like to say “for those who know...” And those who DO know, not only know that CBD from hemp is as good as CBD from marijuana, but they also understand the importance growing and processing play in producing a superior product.

That’s why our customers choose im.bue. And that’s why you should too!

THE TROUBLE WITH ISOLATE



For those of you who've followed Imbue Botanicals from the very start, you know how passionate we are about using the terms “whole plant” and “full spectrum” to describe our products. Everything we make, everything we sell can be defined by those terms.

And it's not by accident. And they aren't just clever catch phrases we use to market our products. Rather, they are a reference to a very important concept with respect to cannabinoids and CBD. For some time now, researchers and practitioners have believed that a more unrefined extract taken from the plant itself provided more benefits due to what's called the entourage effect.

First described in 1998 by Israeli scientists Shimon Ben-Shabat and Raphael Mechoulam, the entourage effect supposes that the multiple cannabinoids and terpenes found within Cannabis Sativa actually work in unison and harmony to produce a better outcome than if they were employed solo. In other words, “the whole is greater than the sum of its parts” when it comes to cannabis.

You might ask, “Tom, that's interesting, but isn't all CBD whole plant and full spectrum?” The answer to that question is a resounding “NO”! Actually, much of the CBD in the market today is in the form of what we call ISOLATE, which is a purified, powdered form without the other cannabinoids or terpenes. This isolate is then mixed with carrier oils, etc.,

to formulate products. And it's not that they are all bad, or don't work, they just don't work near as well.

And a presentation given at the International Cannabinoid Research Society Symposium in Montreal seems to leave little room for doubt that this is the case. Dr. Fabricio A. Pamplona, Scientific Director of Entourage Phytolab in Sao Paulo, Brazil compared studies of epileptic patients between 2013-2016 that had used either CBD rich extracts or a purified CBD isolate. What he found was that CBD isolates showed a 43% efficacy in reducing seizures, while CBD rich extracts almost doubled this at 78%. He also discovered that almost 3 times the amount of purified CBD isolate was needed for seizure reduction compared with CBD rich extracts, and that herbal CBD had less than half the amount of reported side effects compared to its isolated alternative. Like I said, CBD isolates just don't work as well!

So that's why we make our product using whole plant, full spectrum extract from the aerial parts of organically-grown hemp plants. But we don't stop there. We extract using our proprietary low-temperature, low-pressure technique that preserves the cannabinoids and terpenes in a way other processing methods don't. And what we end up with isn't run-of-the-mill CBD; we end up with the finest CBD products available. And if you're using them, we think you'll agree.

So therein lies our rationale, the heart of our passion to produce the most efficacious CBD products money can buy. Whole Plant. Full Spectrum. Because that's what you, our customers, deserve.

CHANGES IN LATITUDE, CHANGES IN ALTITUDE... WHY WE GROW AT 7600 FEET



The other day a customer asked me why we grow our hemp in Colorado rather than, say Kentucky or the agricultural areas of California. It's simple really. It has to do with ALTITUDE and LATITUDE.

As many of you know, at im.bue, our hemp is grown in the San Luis Valley of Colorado, an area with a rich agricultural history. And being a Rocky Mountain “valley”, the elevation there is naturally high....7600 feet above sea level to be precise.

A rise in elevation results in a thinner atmosphere meaning less obstruction to the sun's rays. If you've ever gone skiing in places like Colorado or Utah, you know how fast you can suffer a sun burn! So as elevation increases, living things are exposed to more sunlight and in particular ultraviolet light, both UVA and UVB. In humans, our bodies' response to these ultraviolet waves is to produce melanin which of course produces a tan to further protect against the sun's harmful rays. In plants, the reaction is generally to produce more flavonoids to protect against the sun's harmful rays.

The increase in altitude produces a rather “geometric” increase in ultraviolet light. For every 1000 meters in elevation, UV light increases some 10-12% according to the World Health Organization. This means

that our hemp plants are exposed to nearly 28% more UV light where we grow our hemp! Studies have shown that UVA light significantly increases the production of cannabinoids in Cannabis Sativa (UVB only increases THC production).

But as I mentioned, it's also about LATITUDE. Scientists have known for some time now that cannabis plants grown north (or south in the Southern Hemisphere) of 30 degrees latitude are higher in CBD than plants grown in the tropical or subtropical regions of the Earth, likely due to the increased exposure to UVB in these areas.

So simply put, growing our plants in higher elevation, north of 30 degrees latitude produces a plant richer in CBD and other cannabinoids. And that, we believe, translates into a better quality product for you, our customers!

3 THINGS TO AVOID WHEN BUYING CBD PRODUCTS!



Most people are well aware that all CBD products are not created equal. What they sometimes don't know is what to avoid when buying these types of products to ensure they don't get something inferior, or worse yet, ripped off all together.

And now, even government agencies are beginning to address this issue. The following is taken from The Cannabist, April 12, 2017: Denver is clamping down on CBD products that originate outside of Colorado.

A bulletin issued Wednesday by Denver Environmental Health's Public Health Inspections Division outlines a policy prohibiting out-of-state-made cannabidiol (CBD) products intended for human consumption.

"It has come to DEH's attention that some CBD products originate from unregulated manufacturing facilities, have been illegally shipped across state lines, contain unapproved ingredients, or have been made in unsafe manufacturing conditions," officials wrote in the bulletin. "When DEH encounters these products, retailers and manufacturers may be subject to DEH enforcement and requests for additional information to demonstrate that the product was manufactured safely."

And frankly, we're delighted to see this kind of intervention. But until this type of intervention becomes more common, here are the 3 things to avoid when buying CBD products:

1. Don't buy products that originate from overseas. Much of the product available today is neither organic, nor US grown. In fact, most all other CBD products utilize imported material to compound their product Stateside, or ship it in its finished state from places like China or Romania. In addition, product that is manufactured in whole or in part overseas is not under the control of the company.

At imbue, ALL of our hemp is Colorado grown and processed. We maintain strict "chain of custody" throughout the entire process, and control every element from seed all the way through to the consumer.

2. Don't buy products that contain mostly isolate CBD. So much of the competitive product contains only isolate, or refined, powdered CBD which is shown to be far less effective in laboratory studies when compared to whole plant extracts like imbue botanicals exclusively utilizes.

Our unique low-temperature, low-pressure processing helps ensure we preserve the naturally-occurring cannabinoids and terpenes so we can deliver what we think is one of the best full spectrum product lines there is. CLUE: if the milligrams of CBD in the product seem extremely high, it's probably isolate!

3. Don't buy products that aren't processed in cleanroom environments under strict control, and grown in human agricultural fields. Much of the hemp grown overseas in places like China is not grown in prime agricultural fields, but rather grown in less productive soil. It is, after all, a weed and grows well even in less than ideal conditions. But for years, it's also been grown to help "clean up" contaminated soil areas. Hemp has a natural affinity for contaminants, and once contained in the plant, that's where they stay. And that's a real problem if you're planning on consuming it!

At imbue, we grow our product only in Colorado at high altitude for maximum sun exposure in fields that grow human consumable crops, test the soils for any contaminants or pesticides prior to planting, process it ourselves in cleanroom environments, independently test our products

prior to shipping and batch label for complete traceability.

Beyond all that, our premium Colorado grown hemp CBD products are organically-grown, non GMO, cruelty free, gluten free, vegan and contain no added flavorings or sugars.

So here's the best advice we can offer to avoid those costly mistakes when buying CBD products...be in the know... **SIMPLY BUY IMBUE BOTANICALS!**

FREQUENTLY ASKED QUESTIONS

1. **What is CBD?**

CBD is the abbreviation for cannabidiol, one of the many cannabinoids found in hemp. CBD has been shown in many studies to provide significant health benefits.

2. **I've heard CBD can provide significant health benefits. Specifically, what are they and what ailments are they effective in treating?**

Because of FDA regulations, we are unable to specifically address these questions. Most of our customers do, or have done, considerable research on their own, which is why we say “for those who know...” there is a plethora of information available. Simply search “CBD and _____” and you’ll find a wide range of useful data.

3. **What is the difference between industrial hemp and marijuana?**

Essentially industrial hemp and marijuana are the same plant species... Cannabis Sativa. The difference is industrial hemp is cultivated for significantly lower amounts of tetrahydrocannabinol (THC), by definition less than 0.3% by dry weight. In addition, industrial hemp generally has a more fibrous stalk and grows taller than marijuana which tends to grow more “bushy”. Other than that, the plants are virtually identical. ALL OF THE PRODUCTS WE SELL ARE REFINED FROM INDUSTRIAL HEMP.

4. **I've heard CBD from marijuana is better than CBD from hemp. Is this true?**

No. As explained above, marijuana and industrial hemp are virtually the same plant and the CBD compound extracted from either is identical. The difference is that we cultivate our hemp to produce a high concentration of CBD. Most marijuana plants grown today contain very low levels of CBD.

5. Is industrial hemp considered marijuana under State or Federal laws?

No. Industrial hemp is NOT defined as marijuana under State or Federal laws.

6. Where do you ship your products?

We ship to all 50 States.

7. Can I get “high” from taking your products?

No. Because our products contain no THC or extremely low levels of THC, they cannot make you ‘high’. THC is responsible for the high people experience when smoking or ingesting marijuana.

8. What is “Full Spectrum” and why is it better?

All of our products are refined from the flowers of our hemp plants. Because we utilize the best parts of the plant in our processing, we are able to produce an oil rich not only in CBD, but other beneficial cannabinoids and terpenes as well.

9. Doesn’t everyone offer “full spectrum” products?

No. Much of the competitive product on the market contains only isolate or desiccated CBD. Research has shown that isolate CBD is far less effective.

10. Where does your hemp come from?

Unlike the vast majority of competitors, we only use organically grown Colorado hemp, grown by our farmers under our watchful eye. Most of the hemp sold in the US is imported from places like China or Romania, and simply purchased by our competitors for use in their products. In addition, and most important, our product is grown in fields which grow crops for human consumption, free from pesticides and harmful chemicals.

11. Any additional benefits from Colorado grown hemp?

Because we grow our hemp in high altitudes, our crop is naturally exposed to more sunlight which can increase the natural concentration of cannabinoids.

12. What do you mean by “chain of custody”?

It means that we control the entire process from seed to consumer, and the product never leaves our control. We are involved in all aspects of the process from growing through processing to packaging. It's never shipped from other countries or processed by people who do not work directly for us.

13. How is your oil processed?

We employ a proprietary processing method utilizing low pressure and low temperature to preserve the plant value, terpenes and cannabinoids. Our product is processed with 100% pharmaceutical-grade ethanol made from organic sugar cane, which is then distilled off in the final process. We never use harmful chemicals like butane in processing our oil, and believe that our low temperature processing produces a better outcome than other processing methods such as CO₂.

14. Where do you process your oil?

Unlike many competitors, we process all of our oil here in the United States, actually in Colorado. We maintain that “chain of custody” so important to providing a quality finished product. Our product is processed in clean room environments by professionals adept in process and quality control.

15. What is the difference between your oil and hemp seed oil?

Like its name implies, hemp seed oil is refined from the seeds of the plant and contains virtually no CBD or other cannabinoids. It does contain an excellent 3:1 balance of omega-3 and omega-6 fatty acids, which can promote cardiovascular health. We utilize hemp seed oil as the second, and only other ingredient in our health capsules.

16. What is a “tincture”, and why do you offer them?

Tinctures are essentially an infusion made by dissolving a substance in alcohol. Ours are a true tincture...not simply CBD oil or isolate mixed in a “carrier” oil such as olive or coconut oil. We mix ours only with 100% organic, kosher vegetable glycerin refined from palm fruit. Because of this, our tinctures actually taste good and require no added flavorings. They contain only our hemp oil and the vegetable glycerin. We offer tinctures as they are still a pervasive method of delivery, though personally, we prefer the capsules.

17. What’s so special about your capsules?

Our capsules are designed to provide a convenient, consistent dosage, and many of our customers find them easier to take than tincture products. In addition, our capsules are Full Spectrum like all our products and contain only our hemp oil and organic hemp seed oil. The capsule shells are vegan made from vegetable gelatin and they are colored with natural chlorophyll.

18. What dosage of your product should I take?

Again, we can’t recommend specific dosages, and it does vary from individual to individual. Trying different dosages may be appropriate until you find the one that works for you. In general, according to research, lower dose can be effective, and sometimes more effective than higher dosages. In addition, because our product is Full Spectrum, it tends to be more efficacious than isolate-type products.

19. How safe are your products?

Our products are grown in fields that grow crops for human consumption, grown organically, tested for soil contaminants and pesticides, processed in clean room environments and tested by independent laboratories for potency and purity. Our products are organic, Non-GMO and virtually all vegan.

20. There are fewer ingredients in your products than some of your competitors.

Exactly. Because of our processing methods, we utilize fewer ingredients

and deliver what we believe is a higher quality product. We never use stabilizers, artificial colors or flavorings.

21. What is the difference between your topical lotion and salve?

Our lotion utilizes an organic lotion base and contains arnica flowers, essential oils of rosemary and mint and, of course, our proprietary hemp oil. It's fast absorbing and leaves the skin smooth and soft. Our salve is a thicker consistency product with a base of organic grapeseed oil and natural beeswax and contains a higher concentration of CBD.

22. Unlike many of your competitors, you offer products for people and pets. Why is that?

We believe that in today's "modern family", our pets play an integral role. And as such, deserve to have access to the same high quality hemp CBD products as their "human" counterparts. We grow, process and package our pet products exactly like the ones intended for people, but specifically formulated for dogs and cats. We offer tinctures, and capsules in two strengths depending on size, for dogs, and tinctures and capsules for cats as well.

23. What is RSO or Rick Simpson Oil?

RSO or Rick Simpson Oil is a processing method named after its inventor. It is essentially an ethanol -processed oil, almost exclusively from marijuana, not hemp.

24. What experience do the founders of your company have?

With nearly three decades of experience in the cannabis and healthcare industries, the founders of im·bue botanicals are passionate about utilizing our expertise and know-how to deliver exclusive, proprietary products, designed and envisioned to provide outstanding results.

25. Why do you say your business approach is "Earth First"?

Growing hemp actually helps reduce our "carbon footprint". We grow all our products organically, utilize only other organic ingredients, and package in fully recyclable materials.

26. Is the Vegetable Glycerin that is made from Palm Fruit contributing to the Palm Oil Environmental Issues that we are facing?

This is an important question, and one that we are concerned about as well. We actually use suppliers that source their palm fruit 100% from Malaysia, utilizing only the Malaysian Pygmy Palm. Unlike countries like Indonesia where there are virtually no regulations on palm oil plantations and their expansion, Malaysia has a track record of creating a better approach. In 2004, Malaysia established The Round-table on Sustainable Palm Oil (RSPO). The group, currently headed by Darrel Webber who previously worked for the WWF (World Wildlife Fund) in Sabah, includes members from across the industry from planters to buyers, NGOs and bankers. Together, the RSPO has created what it believes are globally credible standards covering the environment, local communities and labor standards. Those who don't comply face investigation and suspension.