

*A healthy outside starts
from the inside*

Your Endocannabinoid System

WHY CBD WORKS SO WELL



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Due to changes in local, state and federal laws, the legal status of marijuana is continually in flux. *Always review regulations before pursuing the sale or purchase of marijuana products.*

Introduction

As you discover more regarding the vast therapeutic effects of cannabis and the use of cannabinoids in the body, one thing will become quickly clear: cannabis has a vast and profound influence over the human body. This very specific compound, found in both hemp and marijuana plants, seems to have a positive effect on every aspect of our minds and bodies. How is this possible?

At home health remedies that purport “cure-alls” come and go, all with huge claims but very little scientific evidence to support their strong stances. CBD stands far apart from these. As doctors and scientists team together, in an effort to disprove medical claims, they are met with an explosion of scientific evidence on the therapeutic aspects of cannabis. More evidence can be discovered on the benefits of cannabidiol as a medical substance, than some of the most widely used conventional medical treatments today.

How can one compound truly help so many different conditions? How can its actions provide both curative and palliative results? How is it considered to be so safe yet yields such powerful effects? The scientific search to answer these questions has led to the discovery of a previously unknown physiological system.



What is the Endocannabinoid System?

The endogenous cannabinoid system was appropriately named after the plant that led to its discovery. Perhaps the single most important physiological system involved in the establishment and maintenance of the body, the endocannabinoid system offers a basis of health and healing in every human and almost every animal.

Endocannabinoids and their receptors can be found all over the human body; immune cells, glands, connective tissue, organs, and in the brain. Within each of these tissues, the endocannabinoid system performs a variety of different tasks. Although the endocannabinoid's duties stretch across a spectrum, a central goal is maintained; homeostasis. Homeostasis is the maintenance and stability of the body's internal environment, despite fluctuations or changes in the external environment.

The most unique aspect of cannabinoids is that they promote homeostasis at every level of biological life. From sub-cellular, organisms, the molecular community, and beyond, they are all promoted and maintained through cannabinoids.

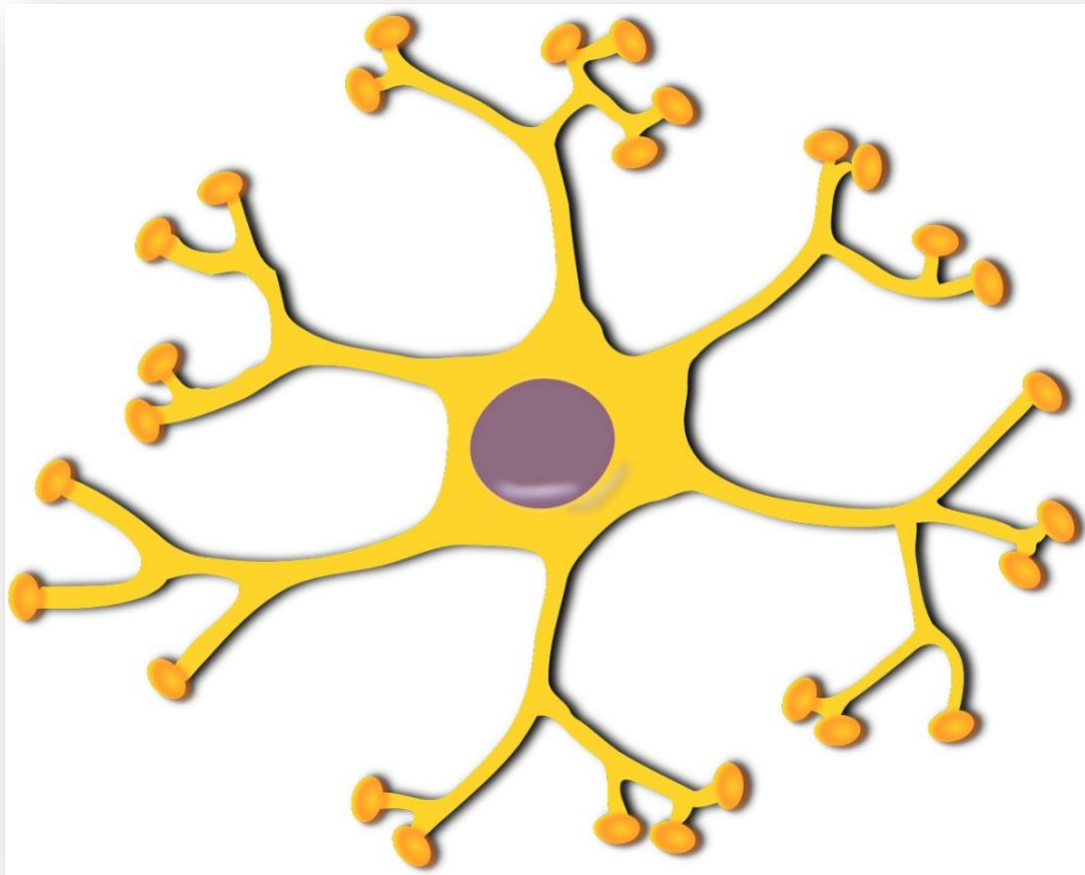


Additionally, endocannabinoids and cannabinoids are found at the center intersections between the body's unique systems; allowing coordination and communication between cells of different types. For example: At the site of an injury, cannabinoids can be discovered decreases the release of sensitizers and activators typically found in the injured tissue. This actually stabilizes the cell nerve, to prevent excessive firing, and effectively calming nearby immune cells, in an attempt to prevent the body's release of pro-inflammatory substances. This displays three different actions on three different types of cells for a targeted and single purpose: minimizing the pain that is caused by injury.

The endocannabinoid, with its complex actions and pairing between our nervous system, all of the body's organs, and our immune system, is literally a bridge between the mind and body. Understanding the endocannabinoid system is the first step in explaining how elevated states of consciousness may help with the promotion of health or even disease.

In addition to the regulation of our internal-cellular homeostasis, cannabinoids also have an influence over a person's relationship with their external

What Are Cannabinoid Receptors?



The endocannabinoid system is an essential part of adaptation to environmental changes. Interestingly enough, scientists have discovered that cannabinoid receptors are apparent in a wide variety of animals and have evolved from more primitive species over 600 million years ago.

While we do know a lot about cannabinoids in the human body, large gaps in our understanding do exist, such as the complexity of the interactions between cell types, cannabinoid systems, and individual organisms, challenge scientists to this day. Here's a brief overview of what we do know.

Cannabinoid receptors are found throughout the entire body, embedded throughout our cell membranes. When these receptors are stimulated, a variety of physiologic processes follow in suit. Scientists have identified two types of

cannabinoid receptors. CB1 is predominantly found in connective tissues, organs, glands, gonads, and the nervous system. CB2 receptors primarily lie within the immune system and its associated structures. Although many tissues found in the body contain both CB1 and CB2 receptors, each one of the receptors will actually link to a different action. Researchers do expect that third receptor will soon be discovered.

Endocannabinoids are the substances that our body naturally creates in order to stimulate these receptors. The most researched and understood of the molecules created by our bodies are 2 arachidonoylglycerol (2-AG) and anandamide. These molecules are developed on-demand from arachidonic acid derivatives of the cell membrane. Both of these have a local effect on the body before being degraded into beneficial fatty acid enzymes.

The Endocannabinoid System and Good Health

As we continue to discover more about the science of cannabis and cannabinoids that are naturally produced in the body, one thing remains painstakingly clear: a great functioning cannabinoid system is essential in order to maintain good health. From our very first action of embryonic implantation in our mother's uterus, to our growth as high functioning adults, and responding to injuries as well as the world around us, endocannabinoids are what have allowed to survive in our ever-evolving and potentially hostile environments.



With a uniquely designed reactor system such as this, can an individual enhance his or her cannabinoid system by taking substances high in cannabidiol? Beyond the treatment of disease and chronic systems, can stimulating the ancient system that is hard-wired into all of us actually promote good health and a long/happier life?

The extensive scientific research available on the subject would suggest without a doubt, yes. It has been proven, beyond a reasonable doubt, that small doses of exterior cannabinoids can signal the body to naturally produce more of its own endocannabinoids, therefore building more cannabinoid receptors. This is why many first-time cannabinoid users do not feel an effect, but repeated uses have allowed the body to build more cannabinoid receptors that are ready to respond

to your positive bodily input. Having more receptors increases your sensitivity to cannabinoids. Smaller doses overtime actually have a larger effect and enhance the body's natural baseline of your endocannabinoid system's activity, acting as a tonic to our central physiological healing system.

That being said, it is extremely possible, that cannabinoids could be the most useful remedy available to humans for the treatment of a wide variety of human conditions and diseases, a staple in preventative healthcare, as well as an adaptive support of our increasingly carcinogenic and toxic environments.

The world of medical treatments is involving, in part because the public is demanding it. People are searching for safe and natural alternatives to the harsh and vastly understudied chemicals that are available on the market today. People want to improve their own body's ability to self-heal and improve their own quality of life. Naturally produced cannabinoids, such as CBD oil is one of those solutions. Let's look at key differences between how the body reacts to the two main components of marijuana, THC and CBD.

CBD vs THC - What's the Difference?

In the United States today, over a million individuals are prescribed medical marijuana to treat a wide range of diseases and illnesses. With the number of medical marijuana users on the rise, there is an increased need for information and education.

Medical Marijuana Composition



Medical marijuana plants contain over 85 different chemicals (or cannabinoids). The primary cannabinoids, cannabidiol (CBD) and delta 9-tetrahydrocannabinol (THC), interact differently with receptors in the central nervous system and brain, resulting in distinct effects on the human body. Because the levels of CBD vs. THC can be altered in marijuana plants, they function as the medicinal properties in medical marijuana, providing symptom relief from a variety of ailments.

THC vs. CBD Effects

Although CBD and THC are both fundamental components of medical marijuana, they are known to provoke considerably different reactions for users. This is mainly due to the difference in CBD and THC's psychoactive properties. THC is the only psychoactive cannabinoid in marijuana, which is what causes feelings of euphoria. Beyond producing the "high" often associated with ingesting marijuana, THC has significant medicinal qualities.



THC has shown success in supporting the body's natural ability to recover from:

Inflammation – The THC cannabinoid has significant anti-inflammatory properties. THC works by decreasing the release and production of pro-inflammatory proteins in the body.

Chronic pain – one of the most common uses of THC is in the treatment of pain. THC activates pathways the central nervous system, blocking the pain signals from being sent to the brain.

Weight loss – individuals who have certain diseases that affect the appetite and/or cause weight loss (i.e. – cancer) are often prescribed medical marijuana with THC, as THC is known to stimulate appetite, and therefore, weight gain.

Neurotoxins in the brain – THC is gaining popularity in the treatment of brain diseases, such as Alzheimer's. THC functions by reducing the plaque that builds up in the brain that affects communication between neurons, ultimately leading to neurodegeneration.

In the assessment of CBD vs. THC, the fact that CBD is a non-psychoactive cannabinoid does not imply it doesn't possess medicinal properties. While feelings of euphoria are not associated, CBD still has a wide range of curative applications.

CBD has shown success in supporting the body's natural ability to recover from:



Seizure disorders – in one major study, individuals using cannabis with higher levels of CBD (versus other anti-seizure medications) saw an 80% reduction in frequency of seizures.

Nausea and vomiting – vast research established that in low doses, CBD quells nausea and associated vomiting (yet, in high doses CBD can actually increase nausea).

Anxiety – CBD is used to treat individuals with generalized and social anxiety. Some studies also show its effectiveness in treating panic disorder, obsessive-compulsive disorder, and post-traumatic stress disorder.

Cancer – several studies demonstrate CBD’s ability to inhibit cancer cell migration and invasion

The negative effects of THC – THC’s psychoactive component can cause anxiety and paranoia in some, for which CBD is effective in counteracting.

Conclusion

Both CBD and THC are central elements of what constitutes marijuana as “medicinal.” Yet its potential effectiveness lies in the ability to be tailored based on individualized needs. Boosting the medicinal effects is achieved through modifying a strain’s compound; and by changing the potency (or levels) of CBD vs. THC, an individual’s specific symptoms can be targeted for maximum relief. With this knowledge, and continued research and education, it is likely marijuana, as a treatment intervention, will become a mainstay in the medical world.

