

# THE CBD MOVEMENT

A revolution in human biology based on the discovery of a built-in receptor system in the human body.

**The Endocannabinoid System  
(ECS)**



# HISTORY

Cannabis has been cultivated for its medicinal properties for thousands of years. The earliest recorded medicinal uses of the plant date as far back as 1400-2000 B.C.

In 1937, the “Marijuana Tax Act” was passed in the US- regulating and taxing production of hemp and Marijuana for medicinal purposes.

However, the act was ruled unconstitutional in 1969 and it was criminalized shortly after, as a result research into this plant was effectively halted for many years.

# HISTORY

The Endocannabinoid system was only discovered less than 30 years ago.

The journey to the discovery of the endocannabinoid system started in 1895 when researchers were able to isolate the very first plant-derived cannabinoid- cannabinol(CBN).

Forty years later in the 1930's, a researcher was able to figure out the structure of CBN.

Shortly after in 1940, another group of researchers were able to identify a second cannabinoid- Cannabidiol(CBD)

It wasn't until 1964 that scientists began to be enlightened on the nature of cannabinoids after researcher Dr. Ralph Mechoulam and his colleagues first isolated and identified the first psychoactive cannabinoid, Tetrahydrocannabinol(THC) The year before, in 1963 Mechoulam and his team were able to identify the chemical structure of CBD.

These monumental research breakthroughs help set the cannabinoid research pipeline in motion.

In the two decades following these cannabinoid discoveries, scientists were able to learn more about the effects of the cannabinoids but none were really able to understand the mechanisms behind why they worked.

# HISTORY

In 1988 after scientist located the first cannabinoid receptors in an animal's brain they started to understand how cannabinoids worked.

In the early and mid-90's, Mechoulam and his colleagues located and identified two of the body's naturally produced major cannabinoids, anandamide and 2-arachidonoylglycerol. Then, discovering the presence of the endocannabinoid system, which regulates homeostasis in the human body, opening the door for greater breakthroughs on the therapeutic application potential of cannabinoids.

In 1993 researchers discovered a second receptor that was distributed throughout the immune system & peripheral tissues of the body.

Just two years later, in 1995 researchers discovered that the two receptors- now deemed CB1 & CB2 receptors, were not only found in rats but thousands of other species- ***including humans.***

Scientist are still learning more about the role that the endocannabinoid system plays in our health.

# The Endocannabinoid System (The ECS)

Did you know that there is a system in our bodies comprised of receptors that interact exclusively with cannabinoids like CBD?

While decades of Cannabis prohibition will debate this claim, this system does exist.

If you imagine the body like a machine, each system works together to keep the machine moving.

The immune system is like a filtration system, the brain is like the motherboard, and endocannabinoids help to maintain these systems.

Researchers have discovered the signaling system between phytocannabinoids and endocannabinoids- which revealed that our bodies are designed to interact with cannabinoids.

They have established that the system, when working properly, helps regulate processes like sleep, appetite, digestion, mood, motor control, immune function, reproduction & fertility, pleasure & reward, memory, temperature regulation, & pain.

# CB1 & CB2 Receptors

CB1 receptors are concentrated in the brain and the central nervous system, a system in the body that maintains core functions such as motor activity, pain perception, stress response, & memory.

CB2 receptors are widely distributed throughout the peripheral organs in the body, serving as core components in the immune system, muscular system, and cardiovascular system.

# Why we need Phytocannabinoids

Like any machine, whether it be a result of poor maintenance, damage, or natural aging- our body parts and systems can deteriorate and malfunction. When this happens, it affects the entire body and can lead to serious health problems.

Since the discovery of the Endocannabinoid System, researchers have learned more about the synergistic relationship between phytocannabinoids and endocannabinoids.

Because endocannabinoids are present throughout numerous functions of the body, researchers suggest they help facilitate the maintenance of these functions.

Endocannabinoids are designed to maintain the health level of the body naturally- If that level decreases, theoretically, they would only maintain the existing health level and may not be enough to prevent it from decreasing further. Overtime, the health level could decrease, growing into a bigger health problem.

This is where phytocannabinoids like CBD come in-

CBD is the single compound that has the most effect on this particular system.

# How CBD works

Research reveals that when CBD bonds with CB1 or CB2 receptors, it alters and/or improves the capabilities of the receptor, thereby improving the receptors functionality.

If the body suffers from cannabinoid deficiency, administering CBD can help equalize the deficiency. Basically it's like a power-up for the endocannabinoid system.

By bonding with our body's CB1 and CB2 receptors, CBD not only helps to maintain vital functions- it helps to restore homeostasis or balance within the body- this is the root of its many health benefits.

# What is CBD?

CBD, also known as Cannabidiol is a medically significant component of the cannabis plant.

CBD is known for its numerous therapeutic and preventive purposes.

Legal CBD is derived from the hemp plant.

THC is the molecule in marijuana that will cause a person to feel euphoric or stoned.

It is important to clear up a misconception that the entire world had up until recently. You cannot get high or stoned from CBD hemp oil. You just get healthier.

According to government backed studies, CBD can have beneficial effects on the following:

Inflammation  
Chronic pain  
Cancer  
Blood pressure  
Diabetes  
Stress  
Anxiety  
Psychosis  
Seizures  
Insomnia  
Alzheimer's  
Dementia  
Parkinson's  
HIV  
Glaucoma  
PTSD  
Depression, ETC..



# CBD

- is considered a very promising agent with the highest prospect for therapeutic use in the treatment of neurodegenerative illness.
- has been found to have antioxidant properties, which aid in the recovery of neurological damages from stroke or trauma.
- may be useful in preventing nerve damage, providing neuroprotection.
- has been documented as effective for patients suffering from epileptic seizures who fail to respond to traditional pharmaceutical anti-seizure medications.
- has been shown to help patients manage symptoms associated with HIV and AIDS treatments and may even help slow the progression of the virus.
- has been shown to have clear and measurable impact on inflammatory regulation mechanisms such as IBS, Crohn's, and arthritis.
- is able to produce significant anti-tumor activity and has been shown to produce oxidative stress in cancer cells thus producing apoptosis (Cancer cell suicide) without impacting normal cells.

# More Benefits of CBD

Most health problems are a result of imbalance in the body.

In a healthy body, everything is as it should be and the body is balanced. In an unhealthy body, there is too much or too little of something, and this disrupts the natural balance of the body.

# Consider the following health conditions that result from imbalance and how CBD benefits these conditions by restoring balance:

Stress and anxiety often occurs as a result of your response to a situation you perceive as risky, dangerous, or unwanted. An imbalance of hormones or excessive messages within the brain will increase your cortisol levels causing you to feel stressed. CBD combats stress by regulating how your brain responds to stress signals and maintaining your cortisol levels.

Inflammation can be characterized as a part of your body becoming swollen and hot, often times being very painful. Ranging in severity, inflammation is linked to conditions like arthritis, bacterial infections, and autoimmune disorders. CBD combats inflammation by suppressing inflammatory response and pathways, stimulating the production of regulatory cells, and managing our pain perception.

Seizures are caused by erratic electrical activity in the brain, causing the body to shake violently. CBD has proven to greatly reduce seizures in patients suffering from severe forms of epilepsy. CBD reduces seizures by slowing down nerve activity and subduing the brain's reaction to the intensified signals that cause the brain to overload.

# Is CBD safe?

CBD is nontoxic and safe to ingest or use topically.

Recently the FDA approved the first CBD drug derived from the hemp plant to treat rare forms of epilepsy.

Well respected medical spokespersons from all walks of life are admitting how wrong they were in their early assessments towards hemp oil and are now talking about its extraordinary effects on human health.

There has been a worldwide cultural shift since the discovery of the ECS

Controversies of safety stem from the following issues-

What is the proper dosage?

Where is the CBD being sourced?

Interactions with medications

CBD has been tested up to 700 mg /day and no side effects were noted, so it's margin of safety is great.

There have been drug interactions with medications like benzodiazepines and CBD so patients are instructed to offset their CBD from those types of medications.

The safest approach is to purchase from a safe and known distributor.

# How to use CBD

Start slow and low- gradually increase doses.

There is no reasonable foundation to recommend dosing from the scientific literature. However, in our experience this supplement given at 12-25 mg once daily appears to provide relief of key symptoms with minimal side effects.

## **General guidelines for dosing:**

Nervous system health - 2-10mg

GI health - 10mg

Social Anxiety - 25mg

Metabolic Health (Diabetes, Obesity, etc)  
- 25mg

Epilepsy - 25-250mg

Cancer - 150-250 mg per day for 60 days

# Multiple methods of use-

- CBD tinctures and oral solutions
  - CBD-based topical treatments
  - CBD vape products
- Concentrates with CBD
  - Etc..

# Most effective methods:

**Sublingual method-** whole body approach

- Reduces overall inflammation
  - Reduces anxiety
- Promotes better sleep/wake cycles
- Brings the body to homeostasis

When using tinctures or sublinguals you should allow the CBD to sit under the tongue for 2-3 minutes for optimal absorption.

**Topical method-** works great for arthritis, muscle aches, joint pain, psoriasis, fibromyalgia, neuropathy, sports injuries, migraines, headaches, anxiety, multiple sclerosis, etc.

- Works like an analgesic - for reduction of and relief from pain
- Works like a NSAID - for reduction of swelling and inflammation
  - Antispasmodic - reduces muscle spasms
  - Expedites healing time of wounds and dry skin.

Apply ointment after a warm shower while your pores are open and you have good blood flow from the heat for best results.

These products aren't meant to replace medications, but rather to complement and potentially reduce the need to use pharmaceutical products with negative side effects.

# WHY VAPEN CBD?

Our family company believes in natural remedies for health and wellness.  
That's how we became medicinal users of CBD products.

In 2012, our company founder had the opportunity to turn his passion for natural CBD remedies into what has become Vapen CBD.

The company has a simple mission – create the most natural, pure and effective CBD products anywhere. Our company culture is rooted in excellence and service.

# Quality

## **Organically Grown**

Finest quality organically grown in  
America.

# Unequaled Purity

No synthetics and third-party  
lab certified for the best CBD  
purity anywhere.

# Superior Absorption

Products properly absorbed  
by your body for fast results.

# Citing

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