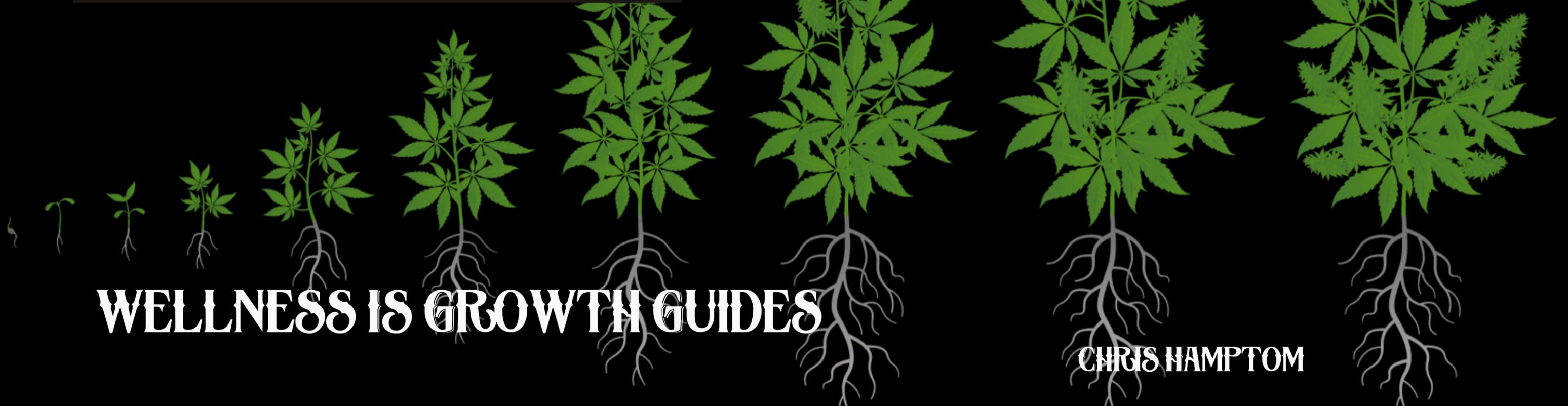


**Hampton's Choice was started to bring products to market that we have found help in our everyday lives dealing with pain, inflammation and well-being.**

**The companies focus on a whole health lifestyle, productivity and our customers. Our experience with the cannabis plant in both THC and CBD serves us well in communicating information most companies in our space miss.**

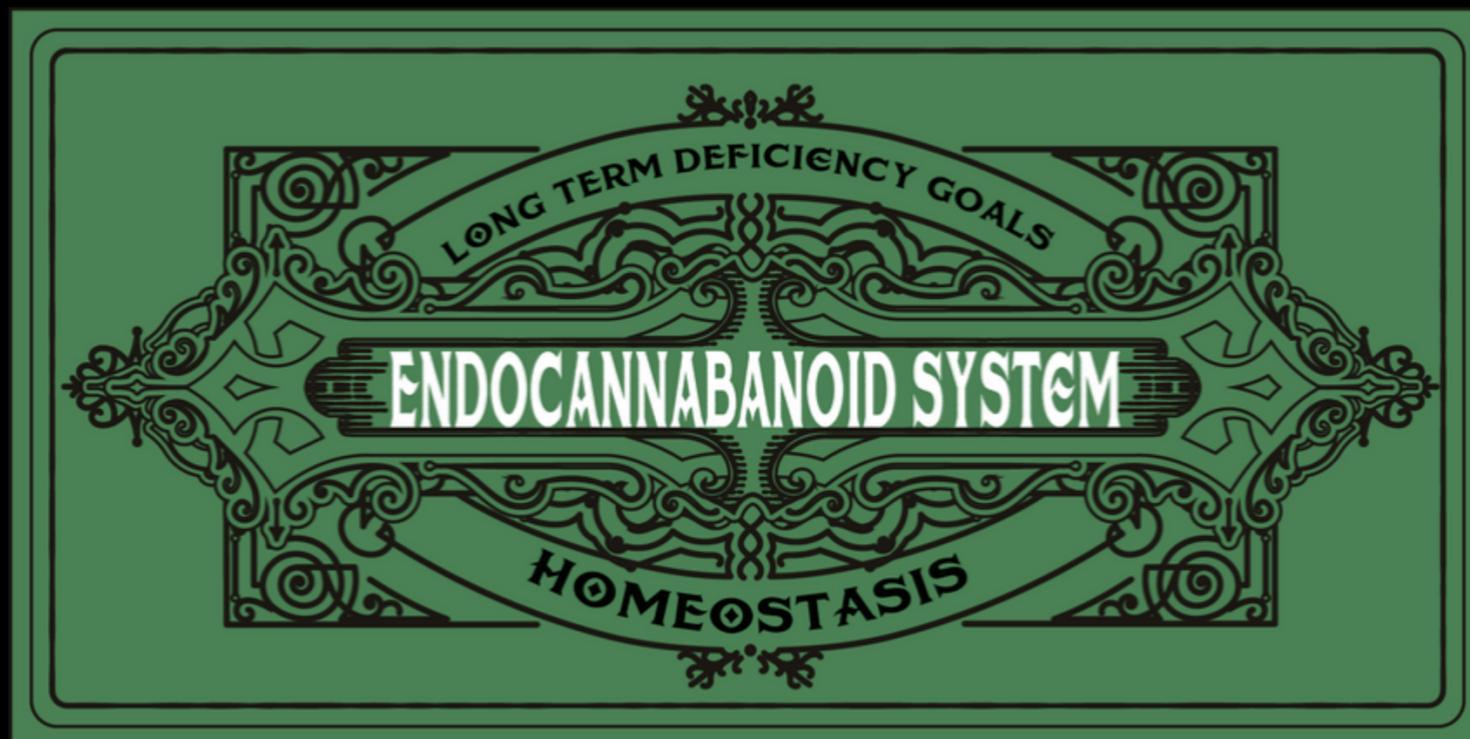


**WELLNESS IS GROWTH GUIDES**

**CHRIS HAMPTON**

# The Endocannabinoid System (E.C.S)





## *What is CBD?*

### **The endocannabinoid system**

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**Not only is the ECS it a natural part of our bodies, it's a crucial one.**

**You may have heard a lot of claims about the medicinal properties of marijuana in general or of the cannabinoids THC and CBD.**

**With so many seemingly unrelated effects, you might wonder whether it's just a lot of hype from people who want the drug legalized; and when the scenario comes up when your getting to that age where everything hurts, productivity is low, and there is no enthusiasm for getting out the door to work.**

**We think being educated before you spend your hard earned dollars on something where there is so much mis-information and so many claims.**

## **Forward Chris Hampton**



**"I grew up with pain in all my joints. I really thought everyone woke up stiff and in pain and it got better as the day went on.**

**Through my early work life, not finding a reason for my pain and not being able to perform I was labeled lazy, and a faker. Those we're tough years.**

**When the Rheumatoid Arthritis hit and I was properly diagnosed I was 28 years old. Everything started to make sense in the previous years frustration with my pain and inflammation and my journey with a horrible disease began.**

**I have spent the last 15 years in the alternative growing business initially trying to find some relief for my Arthritis.**

**THC does nothing for me and actually works against me when I have tried it.**

**CBD on the other hand, is a lot different, it helps, it works and strongly believe it will be a mainstream antidote in the years to come. But to get it to where we want it to be, education and studies are imperative. We stay on top of these studies and pass the information on to you.**

Please note: I do have have experience, and I must emphasize the fact that I am NOT a clinical practitioner, I am not a Doctor (and thus NONE of the following information should be taken as medical advice).

\*These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.

MEDICAL SCIENCE BACKS UP MANY "CBD CLAIMS", AND THE REASON FOR THE FAR-REACHING EFFECTS HAVE TO DO WITH THE SIZE AND SCOPE OF THE ENDOCANNABINOID SYSTEM ITSELF.



**The endocannabinoid system (ECS) is part of the human body and can be found in many animals as well. It is made up of a series of receptors configured to react to cannabinoids present in cannabis plants. The ECS regulates many bodily processes.**

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**The ECS itself is made up of three parts:**

**I. Endocannabinoids**

**II. Receptors in the nervous system and around your body that endocannabinoids and cannabinoids bond with**

**III, Enzymes that help break down endocannabinoids and cannabinoids**

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**To understand the ECS, it first helps to understand what homeostasis is.**

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Homeostasis is the state of steady internal conditions maintained by living things. This dynamic state of equilibrium is the condition of optimal functioning for the organism and includes many variables, such as body temperature and fluid balance, being kept within certain pre-set limits



# When something is operating outside of the right range, your body activates the ECS to help correct it.

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The ECS does this via cannabinoid receptors found in select tissues. We have (at least) two types of cannabinoid receptors:

THC binds

**CB<sub>1</sub>**

*Central Nervous  
System  
-Brain  
-Nerves*

CBD binds

**CB<sub>2</sub>**

*Peripheral nervous  
system  
-nerves in  
extremities  
-the digestive system  
-cells in the immune  
system*



**The endocannabinoid receptors and molecules work to maintain a stable internal environment and send out signals between the brain and the body's functions.**

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The cannabis plant uses its own natural cannabinoids to promote its own overall health, disease resistance, and growth. The plant's cannabinoids even help protect the leaves, buds, and flowers of the plant from harmful ultraviolet rays.

It is believed that the cannabinoids in the cannabis plant, the human body's endocannabinoid system, and the human body's cannabinoid receptors might all be able to work together to prevent, treat, and even cure diseases. Currently, research is ongoing to discover how exactly the body's endocannabinoid system works and the possible benefits of cannabis on the system.

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**Endocannabinoid receptors are the most abundant neuromodulatory receptors in the body.**

The total number of endocannabinoid receptors in the body is believed to be greater than all other neuromodulatory receptors found in the body combined, including receptors for the neurotransmitters serotonin and dopamine. Anandamide alone has the most receptors in the brain and is critical for maintaining a healthy central nervous system.

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**The endocannabinoid system (ECS) has been found to play a role in many diseases.**

The ECS helps bring balance to the body. As a result, it is no surprise that scientists have observed changes in ECS activity in a number of diseases. Everything from neurodegenerative disorders to rheumatoid arthritis and cancer have shown changes in endocannabinoid levels and greater receptor expression. This suggests that the ECS may be an effective target for restoring balance in the body and promoting good health.

## **Clinical Endocannabinoid System (ECS) Deficiency Syndrome may be a root cause of some diseases.**

When the ECS is functioning properly, all our various body systems are maintained in a state of dynamic equilibrium, or homeostasis. But what happens when the ECS is dysfunctional or damaged? Scientists have found that certain conditions which are associated with hypersensitivity to pain or stimulus, such as migraines, fibromyalgia, and IBS, the ECS is dysfunctional. This hypothesis, that the ECS may lie at the root of some disorders, is known as the Clinical Endocannabinoid Deficiency hypothesis. It is believed that by supplementing the body with naturally occurring cannabinoids from plants, we can correct this deficiency, relieve symptoms, and restore health

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## **The discovery of the ECS revealed a biological basis for the therapeutic effects of plant cannabinoids and has sparked renewed interest in cannabis as medicine.**

Research has shown that small doses of natural cannabinoids from hemp and other plants help support the ECS and enhance its signaling. This suggests that small, regular doses of naturally occurring cannabinoids from hemp and other plants might act as a tonic to our most central physiologic healing system

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## **Scientists have found that prolonged aerobic exercise increases levels of anandamide, the “feel good” endocannabinoid.**

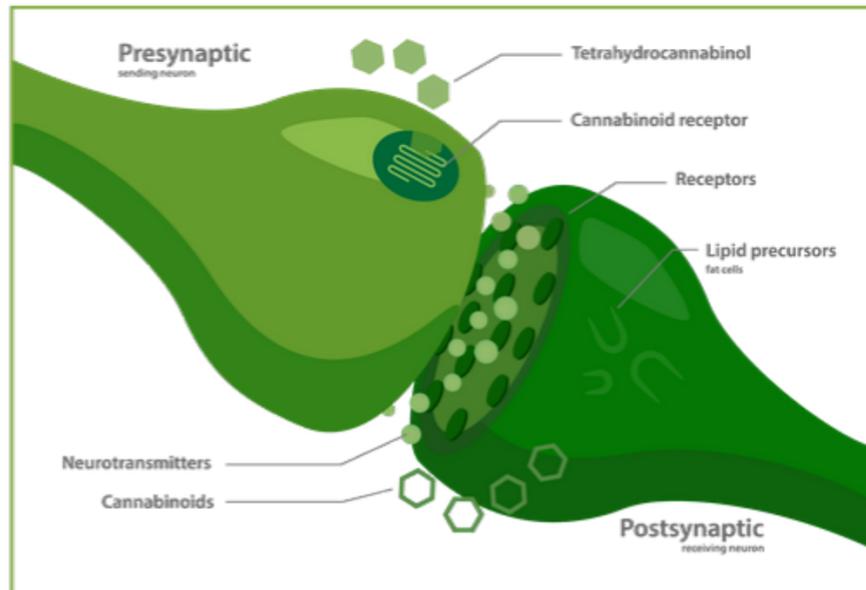
Diet is also a useful target. Increasing your intake of the essential fatty acid, omega 3, found in oily fish or healthy seeds like flax or hemp, can help support endocannabinoid brain signalling scientists have found that prolonged aerobic exercise increases levels of anandamide, the “feel good” endocannabinoid. Diet is also a useful target. Increasing your intake of the essential fatty acid, omega 3, found in oily fish or healthy seeds like flax or hemp, can help support endocannabinoid brain signalling

# HUMAN CBD RECEPTOR CHART

YOUR BODY NATURALLY HAS CB1 AND CB2 RECEPTORS WHICH ARE LOCATED THROUGHOUT THE HUMAN BODY. STUDIES SHOW THAT CBD ACTS MODIFIER TO THE CB1 AND CB2 RECEPTORS WHICH IN-RETURN HELPS THE CB1 AND CB2 RECEPTORS TO FIGHT OFF INFLAMMATION.

## The Endocannabinoid System

CBD, CBN and THC fit like a lock and key into existing receptors. These receptors are part of the endocannabinoid system which impact physiological processes affecting pain modulation, and appetite plus anti-inflammatory effects and other immune system responses. The endocannabinoid system comprises two types of receptors, CB1 and CB2, which serve distinct functions in animal health and well-being.



CB1 receptors are primarily found in the brain and central nervous system, and to a lesser extent in other tissues



CBD does not directly fit CB1 or CB2 receptors but has powerful indirect effects still being studied.



CB2 receptors are mostly in the peripheral organs especially cells associated with the immune system

## CB1 RECEPTORS ARE LOCATED IN CELLS OF THE :

- Brain/CNS/Spinal cord (CB1)**
- Cortical regions (CB1):** (neocortex, pyriform cortex, hippocampus, amygdala)
- Cerebellum (CB1):**
- Brainstem (CB1):**
- Basal ganglia (CB1):** globus pallidus, substantia nigra pars, reticulata
- Olfactory bulb (CB1)**
- Thalamus (CB1)**
- Hypothalamus (endocrine-grain link CB1)**
- Pituitar (CB1)**
- Thyroid (endocrine gland (CB1))**
- Upper airways (of mammals CB1)**
- Liver (CB1):** Kupffer cells (acrophage immune cells), hepatocytes (liver cell), hepatic stellate cells (fat storage cell)
- Adrenals (endocrine gland CB1)**
- Ovaries (gonads and endocrine gland CB1)**
- Uterus (myometrium CB1)**
- Prostate (CB1):** epithelial and smooth muscle cells
- Testes (gonads and endocrine gland CB1):** leydig cells; sperm cells

## CB1 AND CB2 RECEPTORS ARE LOCATED IN CELLS OF THE :

- Eye (CB1 and CB2)** retinal pigment epithelial/RPE cells
- Heart (CB1 and CB2)**
- Stomach (CB1 and CB2)**
- Pancreas (CB1 and CB2)**
- Digestive tract (CB1 and CB2)**
- Bone (CB1 and CB2)**
- Non-CB1 and non-CB2 are located in cells of the:**
- Blood vessels:** epithelial cells of arterial blood vessels (non-CB1 and non-CB2)
- CB2 receptors are located in cells of the: Lymphatic and immune system**
- Spleen (CB2)
- Thymus (CB2)
- Tonsils (CB2)
- Blood (CB2) lymphocytes
- Non-immune cell CB@ receptors are found in the Skin keratinocytes**



Cannabinol



Tetrahydrocannabivarin



Tetrahydrocannabinol



Cannabidiol



Cannabigerol



Cannabigerol

**So you can see immediately from the list that the ECS could play a major role in performance and productivity.**

There might still be a stigma surrounding the use of cannabis for medicinal and health purposes – along with the products derived from it – but that stigma is slowly being unraveled thanks to studies coming out everyday and personal stories from everyone from Moms and Dads to professional athletes.

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With this stigma being lifted, it is imperative for people in the trades profession to be able to understand and be educated on the ever changing studies that are coming out on the ECS system and performance. Especially in lines of work where there are clear benefits, but long standing norms on drug testing and cannabis being only "the drug that gets you high" still exist.

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**Much more needs to happen before the ECS and all things hemp and CBD are considered legitimate options for everyone.**

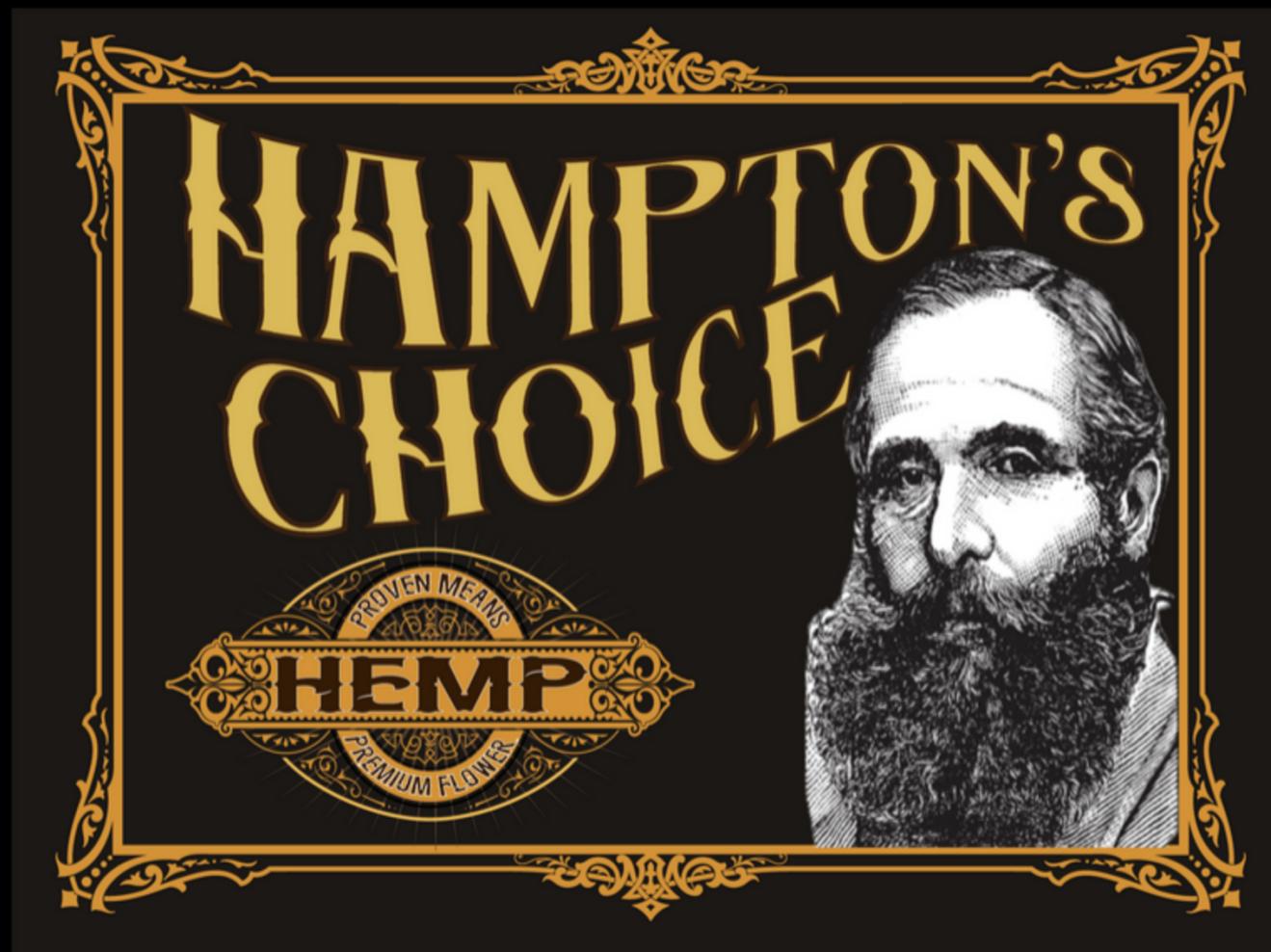
**The fact is, you could walk into to any health food store, right now, and buy it off the shelves.**

**The big takeaway is that unless a Doctor has studied and is well equipped to consider a CBD product, and you know exactly where and by who the CBD is being made and you can be 100% positive you won't test positive, you should probably stay away for now.**

**From our personal experience there is just to much positive not to share, if your hurting at work and it is hurting your productivity, there could be another answer.**

**You don't get paid, if you don't work.**

It's hard to distinguish the bad from the good right now.  
When you start seeing CBD pop in in grocery stores you need to be educated. You need to keep them away from "Head Shops", and you need to know what is really in the bottle at gas stations.  
Bottom line, you should have have a trusted source.



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YOUR TRUSTED PARTNER.  
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