WHAT IS CANNABIDIOL?

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Cannabidiol is one of the most exciting cannabinoids that we are aware of today, and its use is growing worldwide. Cannabinoids are the natural compounds found in cannabis that are responsible for the myriad of effects that cannabis provides to users.

Also known as CBD, cannabidiol is transforming from a little-known cannabinoid long shunned by the cannabis community, to a potential breakthrough nutritional component and wellness supplement that could benefit everyone. Becoming a household name after a series of media reports on its amazing benefits, CBD use is building as more and more people look to take advantage of its effects.

CBD is found throughout the seeds, stalk, and flowers of cannabis plants — including hemp and marijuana. Unlike many of the 100+ cannabinoids that we are currently aware of, cannabidiol naturally occurs in significant quantities in cannabis, so it is easily extracted from the plant in the form of cannabis oil.

Once extracted as a constituent of cannabis oil, CBD can be processed into a number of commercial products like liquids and capsules or further isolated from the oil, purifying it to its <u>crystalline form</u>. Products made from CBD-rich cannabis oil can be found on the shelves of medical marijuana dispensaries, in health food and wellness stores, and online from a range of retailers.

EFFECTS OF CANNABIDIOL (CBD)

Overall, CBD affects the body through its interaction with the body's endocannabinoid system. Found in all mammals, the endocannabinoid system is tasked with regulating a wide variety of bodily functions - such as mood, appetite, sleep, hormone production, and even nervous and immune system responses. The endocannabinoid system is regularly modulating these functions in an effort to keep the body in homeostasis, helping users to feel and function at their best.

Products made with CBD are safe to use by all members of your family. CBD is non-toxic and non-psychoactive, even at high levels, and carries no significant side effects. Learn more about CBD's safety HERE.

WHERE IS CANNABIDIOL FOUND?

As mentioned above, CBD is commonly found in the cannabis plant. However, cannabis is not the only source of CBD.

In fact, CBD is produced in 2 ways:

- Naturally, in the cannabis plant. Cannabis plants first synthesize CBGa or cannabigerolic acid. This compound can then be used by the plant to create cannabidiolic acid or CBDa. Similarly, CBGa can be manipulated by the cannabis plant to create tetrahydrocannabinolic acid or THCa. Time, heat, or light then causes CBDa to decarboxylate or lose a carboxyl group, giving up CO2 and leaving the compound CBD.
 - Cannabidiol can be found in both hemp and marijuana varieties of cannabis. The main functional difference between hemp and marijuana is the level of THC. Marijuana is grown specifically to contain significant levels of THC usually for recreational use, while hemp has only trace amounts of THC. CBD found naturally in hemp is legal in the United States (like all other hemp imports), while CBD from marijuana is federally illegal in the United States, though state-by-state legalization is occurring rapidly.
- 2. Cannabidiol can also be <u>produced synthetically</u> in a laboratory. However, synthetically produced cannabidiol is a regulated substance, and possession of it is illegal outside of a few specialized circumstances.

A CBD-like molecule is also created naturally by the human body. 2-Arachidonoylglycerol (2-AG) has the same neuromodulatory effects as CBD. 2-AG has been detected in human breast milk and, like CBD, acts as an agonist to the CB1 receptor.

CANNABIDIOL PRODUCTS

Because of its many positive effects, people are turning to <u>CBD as a daily supplement</u>, creating a swiftly growing market for commercial CBD products.

CBD products can be manufactured using either hemp or marijuana. However, CBD from marijuana is available only in specific states with <u>medical marijuana</u>programs and only for certain medical conditions.

With the growth in demand for medical marijuana for health reasons, and the legalization movement lagging behind, millions of people are looking for alternative sources of CBD. Because CBD is also a natural ingredient found in hemp, which is <u>federally legal</u> in the U.S., the popularity of CBD hemp oil supplements and topicals has skyrocketed.

<u>CBD hemp oil</u> products have already been available on the mainstream market for several years now.

These include daily use products like

- Capsules
- Tinctures & Liquids
- Gum
- Vape oil
- High concentration extracts
- Isolates
- Bath products, salves, & anti-aging skin care

WHAT IS THE FUTURE OF CANNABIDIOL?

Thousands of studies have demonstrated the wide array of potential benefits that cannabidiol may have, and clinical trials for CBD-based pharmaceutical drugs are underway for a range of medical conditions.

CBD has already become a mainstream ingredient in all kinds of common products. Any controversy over this beneficial, non-psychoactive cannabinoid is quickly dissipating, as lawmakers, officials, and consumers in the U.S. and internationally begin to recognize CBD's potential.

Countries like <u>Mexico</u>, <u>Brazil</u>, and <u>Paraguay</u> have already approved the use of CBD as a prescription medication, and dozens of other countries around the world allow the use of CBD as a dietary supplement. Late in 2017, the World Health Organization officials announced their recommendation that <u>CBD should not be scheduled as a drug</u>. This decision could affect policies regarding CBD in countries worldwide - including the U.S.