

5 COMPONENTS OF THE CANNABIS PLANT YOU NEED TO KNOW



A cannabis plant contains over 480 natural components of which 66 have been classified as cannabinoids. What exactly are cannabinoids? They are unique chemical compounds that interact with specific receptors in the brain and body, via the endocannabinoid system (ECS), to produce a wide range of effects. The function of the endocannabinoid system is to regulate appetite, sleep, pain, mood, memory and more. It has two receptors, CB1 and CB2 which are found primarily in the brain and peripheral nervous system respectively. CB1 receptors are responsible for effects of euphoria and contribute to appetite stimulation as well as pain reduction. On the other hand, CB2 receptors are concentrated in immune cells and work to reduce inflammation[1]. The human body has naturally occurring cannabinoids such as anandamide that interact with the ECS, and this same system is responsible for the effects experienced from cannabinoids found in the cannabis plant.

Researchers have so far identified five primary components of the cannabis plant that have demonstrated immense potential in helping patients treat their symptoms.

Tetrahydrocannabinolic acid (THCA)

THCA is a non-psychoactive cannabinoid found in a raw (unheated) cannabis plant. When left to dry, THCA in the plant slowly converts to THC – a process that is expedited by heat. While there remains much research to be done on the effects of THCA, preclinical studies have found this cannabinoid to have beneficial effects on the endocannabinoid system, some of which include anti-spasmodic effects, anticonvulsant effects, anti-insomnia effects[2].

Tetrahydrocannabinol (THC)

One of the most predominant and most well-known components found in the cannabis plant is THC. Known for its psychoactive effects, THC acts much like the cannabinoid chemicals made naturally by the body; it binds with CB1 and CB2 receptors and stimulates cells in the brain to release dopamine, creating euphoria[3]. It essentially takes the place of natural cannabinoids our body makes itself. Apart from euphoric reactions, THC is also commonly reported to stimulate appetite by triggering receptors in your body to release hunger hormones. THC's potent anti-inflammatory properties is also one of main reasons why the cannabinoid helps with conditions like depression, Alzheimer's Disease, Parkinson's Disease, stroke and more.

Cannabidiol Acid (CBDA)

Found in the trichomes of raw cannabis plants, Cannabidiol Acid (CBDA) is the precursor to the more widely known cannabinoid, cannabidiol (CBD). When heated, CBDA breaks down from its acid form and into CBD. With heat and time, the acid group of the CBDA degrades, leaving behind what many refer to as "activated" CBD. This process of converting CBDA to CBD is called decarboxylation or decarbing. While research on CBDA alone is scarce, a handful of studies found that CBDA has anti-nausea and anti-cancer potential.

Cannabidiol (CBD)

Another major cannabinoid that has received a lot of attention for its medical benefits is CBD. What makes CBD more appealing to some patients than THC is the fact that it lacks psychoactive effects. It does not stimulate CB1 and CB2 receptors; instead, it activates other receptors that exert anti-inflammatory effects and decrease bone re-absorption and cancer cell proliferation[4]. CBD has been shown to alleviate the psychoactive effects of THC, which is why it is considered advantageous to combine the two cannabinoids when used for treatment purposes.

Cannabichromene (CBC)

As the second most prevalent compound found in cannabis, CBC is gaining the interest of scientific communities that are discovering it's antiviral and anti-inflammatory properties. CBC is a non-psychoactive cannabinoid known to have several therapeutic capabilities. Like CBD, this cannabinoid binds poorly to CB1 and CB2 receptors which is why it does not produce a 'high' when consumed. Recent studies found that CBC may be highly efficient as an anti-acne treatment. Additionally, CBC has shown to inhibit tumors and fight cancer.

References ^

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