

CBD F/3: Cognitive™

Supports Healthy Stress Response*

30ml Full Spectrum CBD

Product Information

Cognitive genetically aligned CBD formulation oil is administered orally and sublingually (under the tongue). Formulated to genetically align with individual DNA profiles, **Cognitive** consists of a proprietary formulation of cannabidiol (CBD) derived from hemp, terpenes and essential oils in specific ratios to support a healthy response to stress and manage symptoms commonly associated with a depressed mood, which may include disrupted sleep patterns, feelings of anxiety, nervousness and loss of emotional control.*

PRIMARY INGREDIENTS:

Hemp-derived cannabidiol (CBD)

Cannabidiol or CBD, is one of the many cannabinoids, or chemical compounds, found in marijuana and hemp. Unlike THC, CBD is non-intoxicating but still psychoactive. In other words, CBD interacts with your endocannabinoid receptors (psychoactive), and proteins and cells in the brain, but will not cause impairment or “get you stoned” (non-intoxicating).

CBD has been shown in a number of phase I and phase II research, and phase III clinical trials, to either directly or indirectly affect symptoms of restless sleep and sleeplessness[1], anxiousness and stress[2], depressed mood[3], PTSD[4], Multiple Sclerosis[5, 6], epilepsy[7], psychopathy[8], pain[9], inflammation[10], ADHD[11], cognitive impairment and memory function[12,13], and nausea[14].

According to a 2013 study published in the British Journal of Clinical Pharmacology, CBD benefits including acting in some experimental models as an anti-inflammatory, anticonvulsant, antioxidant, antiemetic, anxiolytic and antipsychotic agent, and is therefore a potential medicine for the treatment of neuroinflammation, epilepsy, oxidative injury, vomiting and nausea, anxiety and schizophrenia[15].

CBD can also boost levels of naturally occurring endocannabinoids in your brain, such as anandamide. Over time, anandamide can stimulate neurogenesis in certain parts of your brain. This has been linked to improvements in anxiety and stress resilience[16].

CBD has been shown to activate the 5-HT1A serotonin receptor[17], which may help with anxiety, addiction, appetite, sleep, nausea, vomiting. It also binds to TRPV1 receptors[18], which has been shown to moderate pain and inflammation. CBD activates peroxisome proliferator activated receptors (PPARs), which has been shown to produce an anti-cancer effect and help with Alzheimer's[19].

In addition cannabinoids and terpenes have been shown to balance endocannabinoid deficiencies[20] which may help promote a homeostatic condition necessary to support overall good health and wellness[21].

INDICATIONS FOR USE

Cognitive is intended as a dietary supplement to support a healthy response to stress and manage symptoms commonly associated with a depressed mood, which may include disrupted sleep patterns, feelings of anxiety, nervousness and loss of emotional control.*

Cognitive formulation uses a proprietary blend of full spectrum cannabidiol (CBD), terpenes and essential oils. All ingredients are derived from natural, botanical sources and processed to ensure a 95% potency. This unique process allows for formulation consistency, and ensures that each tincture provides consistent health outcomes associated with the formulation.*

	Indications	Mechanism of Action	Cautions
Cannabidiol (CBD)	<p>Research suggests that the endocannabinoid system plays a role in maintaining certain body functions, such as mood, appetite, sleep, and regulating circadian rhythms[9,10, 22,23].</p> <p>Several pieces of evidence have shown that CBD acts as a positive compound in different treatments to manage several health conditions, such as psychiatric and neurodegenerative disorders[24, 25, 26, 27].</p> <p>Clinical depression is a serious mood disorder characterized by persistent sadness and loss of interest. CBD has been shown to exert a number of physiological, biochemical, and psychological effects with the potential to benefit increased energy. The neural network of the endocannabinoid system works similarly to the way that serotonin, dopamine, and other systems do, and, according to some research, cannabinoids have an effect on serotonin levels[28,29].</p> <p>Authors of a 2016 study wrote that “CBD could represent a novel fast antidepressant drug, via enhancing both serotonergic and glutamate cortical signaling through a 5-HT1A receptor-dependent mechanism”[30]. CBD might especially be effective for depression related to chronic stress, which has been shown to cause a decrease in endocannabinoid level[31,32].</p>	<p>Within the endocannabinoid system is a network of cannabinoid receptors in the brain and central nervous system. The two primary receptors identified are CB1 and CB2. Cannabinoids attach to these cells, which can produce a variety of biological effects[9,16,21].</p> <p>Cannabinoids act on multiple systems and it is understood that cannabinoids interact with many neurotransmitter and neuromodulator systems. It is important to note that cannabinoids have the ability to interact with all kinds of cellular pathways implicated in a range of diseases. Cannabinoids act as ligands (a small molecule able to dock onto the binding site of a protein) conferring their ability to modulate a receptor’s behavior and consequently their downstream biological pathways. Although the cannabinoids may have similar structures, they display a remarkably wide array of actions.</p> <p>Some research indicates that CBD may interact with specific receptors, potentially affecting the sleep/wake cycle[1, 33].</p>	<p>Cognitive is contraindicated for anyone:</p> <ul style="list-style-type: none"> ● With a known or suspected allergy to hemp, other cannabinoids, Medium Chain Triglyceride (MCT) carrier oil and coconut. ● With significant hepatic or renal impairment ● With serious cardiovascular disease, such as ischaemic heart disease, arrhythmias, poorly controlled hypertension or severe heart failure ● With a history of schizophrenia or any other psychotic disorder ● Under 18 years of age ● Who is pregnant or nursing

Interactions:

Food may affect the absorption and blood levels of cannabidiol. To avoid significant fluctuations in blood levels, cannabidiol should be taken about the same time each day consistently, either with or without food. Consumption of grapefruit and grapefruit juice should be limited, as it may increase the blood levels of cannabidiol. Patients who consume grapefruit or grapefruit juice may require a lower dosage of the medication based on blood levels. Talk to your doctor if you have any questions or concerns.

It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor. For more information on specific drug to drug interaction visit www.mydna.live for a free drug to drug interaction tool.

Terpenes

The hemp plant includes a wide variety of chemicals and compounds. About 140 of these belong to a large class of aromatic organic hydrocarbons known as terpenes. Terpenes may play a role in boosting the therapeutic effect of cannabidiol. Terpenes are believed to act on receptors and neurotransmitters[34], which means they may play a role in providing therapeutic value in achieving health sleep patterns. Some terpenes appear to act as serotonin uptake inhibitors (similar to antidepressants like Prozac) and have been shown to enhance norepinephrine activity (similar to tricyclic antidepressants like Elavil)[35]. As well, some terpenes have been shown to increase dopamine activity[34], and seem to augment GABA[36] (the “downer” neurotransmitter that counters glutamate, the “upper”) which is important to achieve healthy sleep. More specific research is needed for improved accuracy in describing and predicting how terpenes in hemp can be used for specific health concerns.

The FDA, as well as other international health and safety agencies, have recognized terpenes as safe.

Cognitive formulation uses a proprietary blend of terpenes derived from natural, botanical sources and refined to ensure a 95% potency. This process allows for formulation consistency to ensure that each tincture provides the health outcomes you expect, every time.*

	Indications	Mechanism of Action	Cautions
Linalool	<p>Linalool is a non-cyclic monoterpenoid and may promote calming, relaxing effects[37]. Linalool inhibited acetylcholine release and alters ion channel function at the neuromuscular junction[38,39].</p> <p>Studies also suggest that linalool may act to boost the immune system as it directly activates immune cells through specific receptors and/or pathways[40].</p> <p>It has been shown to significantly reduce lung inflammation[41].</p> <p>Linalool may be useful in the treatment of Alzheimer’s disease by reversing the histopathological (the microscopic examination of biological tissues to observe the appearance of diseased cells and tissues in very fine detail) hallmarks of Alzheimer’s Disease and could restore cognitive and emotional functions via an anti-inflammatory effect[42].</p>	<p>Linalool may work in several ways: First, it is an antagonist of the NMDA receptor[43,44]. This means that it can reduce activation of this receptor by glutamate, the main excitatory neurotransmitter of the brain. Other NMDA antagonists also have strong sedative properties. Second, it enhances GABA activity[45], although it does this in a different way than myrcene since it does not bind the same receptor site.</p>	<p>Known allergy to the compound.</p>
Limonene	<p>Limonene has been studied for its potential anti-inflammatory, antioxidant, anticancer, heart-disease preventatives, and anxiety/stress reducing properties[46,47,48,49,50,51,52,53,54]. More research is needed in human trials.</p>	<p>Studies have shown that limonene modulates the production of cytokines and can modulate signaling pathways linked to several diseases[55].</p>	<p>Limonene is considered safe for humans with little risk of side effects. The Food and Drug Administration (FDA) recognizes limonene as a safe food additive and flavoring[56].</p>

Essential Oils

Cognitive genetically aligned formulation uses only the highest quality essential oils, blended from naturally derived botanical sources.

	Indications	Mechanism of Action	Cautions
Juniper Berry Oil	Juniper berries contain substances known as monoterpenes, including limonene, camphor, and beta-pinene. Monoterpenes have been shown to provide anti-inflammatory, anticancer, antioxidant, and antibacterial properties[57]. Can promote health and may protect heart and neurodegenerative diseases [58, 59].	Juniper berry oil showed significant chelating capacity and the ability to inhibit the activity of xanthine oxidase, which led to decreased production free radicals. An important mechanism of antioxidant activity is the inhibition of linoleic acid oxidation[60].	Juniper is POSSIBLY SAFE for most adults when taken by mouth in medicinal amounts short-term. Taking juniper by mouth long-term or in a high dose is LIKELY UNSAFE as it can cause kidney problems, seizures, and other serious side effects[61]. Known allergy to Juniper. Moderate interactions with medications for diabetes (Antidiabetes drugs)[61]. Minor interactions with water pills (Diuretic drugs)[61].
Lime Oil	Known for its purifying properties, Lime essential oil is often used as an internal cleanser.* Lime oil may also support healthy immune function and exhibits potent DPPH and ABTS free radical scavenging activity, being highly effective as inhibitors of lipid peroxidation. The LEO was found to reduce LDL (cholesterol) to counteract hyperlipidemia and may work to reduce blood pressure caused by stress[62].	The scavenging of radicals by antioxidants most commonly occurs via two mechanisms, which involve the transfer of either a hydrogen atom or an electron to convert the radical into a stable compound[62].	Generally been found to be safe [62]. Known allergy to Lime oil. Moderate Interaction with medications changed by the liver (Cytochrome P450 3A4 (CYP3A4) substrates) and Medications that increase sensitivity to sunlight (Photosensitizing drugs)[63].
Lavender Oil	There is growing evidence suggesting that lavender oil may be an effective medication in treatment of several neurological disorders, including depression, anxiety, insomnia and Alzheimer's disease. Several animal and human investigations suggest anxiolytic, mood stabilizer,	Several investigations were performed to clarify the mechanism of action of lavender in neuronal tissues. Lavender inhibited lipopolysaccharide-induced inflammatory reaction in human monocyte THP-1 cells effect, which might be associated with the	Generally found to be safe for internal use[77]. Known allergy to Lavender.

	<p>sedative, analgesic, and anticonvulsant and neuroprotective properties for lavender[64].</p>	<p>expression of HSP70 [65]. Antioxidant and relatively weak cholinergic inhibition was reported for lavender [66, 67] and linalool[68, 69, 70].</p> <p>These findings indicate that several targets relevant to treatment of Alzheimer's disease. The neuroprotective effect of lavender oil against cerebral ischemia/reperfusion injury is suggested to be attributed to its antioxidant effects[71].</p> <p>Lavender oil may also modulate GABAergic neurotransmission, especially on GABAA receptors, and enhance the inhibitory tone of the nervous system[72, 73, 74]. The cholinergic system (a grouping of organized nerve cells in the brain) is suggested to play a role in lavender analgesic, antianxiety, anti-depression, and anticonvulsant effect[65, 75, 76].</p>	
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PHYSICAL DESCRIPTION

Cognitive is an amber-coloured oil preserved in a dark violet Miron glass tincture bottle.

Miron glass and product preservation.

Miron glass[78] is vastly different from the typical glass or plastic CBD tincture bottles available. The dark violet glass protects and preserves, allowing only ultraviolet, violet and infrared spectrum to penetrate to the liquid within. It works as a natural filter blocking the complete spectral range of visible light, with the exception of violet light. Other glass types allow all or most of the visible light spectrum to pass through. This makes them less capable of protecting the sensitive properties of the compounds, like micronutrients, cannabinoids, terpenes and essential oils.

Miron glass relies on a little-known theory called biophotonics. Biophotons are thought to be essential to intercellular communication and the promotion and balance of energy[79]. This unique dark violet glass has been shown to have outstanding properties of preservation over extended periods of time[80]. Water, for example, has been kept fresh in violet Miron glass for over three years without any artificial preservation techniques.

Miron glass offers unique protection from other light frequencies and is believed to enhance the durability and potency of products like CBD oil, without the addition of any preservatives.

DOSAGE AND ADMINISTRATION

SUPPLEMENT FACTS

Serving size: 0.7ml (~12 drops)		Serving per container: 42**	
		Amount per serving:	%DV
Calories		4	
Total Fat		Less than 1g	<1%†
Hemp Extract (Aerial parts) (88% CBD Distillate) (<0.3% THC)		23.81mg	‡
†Percent Daily Values based on a 2000 calorie diet ‡Daily Value Not Established			
Other ingredients: Medium Chain Triglyceride (MCT) carrier oil (CONTAINS COCONUT), Juniper Berry Oil, Lime Oil, and Lavender Oil.			
**DOSAGE PER DROP IS 1.96MG TO 2.04MG AND VARIES BASED ON DROP SIZE.			

Suggested use:

Shake well. Take 0.7ml under the tongue and hold for 1 minute. Swallow. Use 2 times per day or as directed by a physician. Individual results may vary.

Warning:

Intended for adult use only. Consult a doctor before use if you are pregnant, nursing or taking any medications. Keep out the reach of children. Store in a cool, dry place.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.
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Manufactured in accordance with GMP and ISO 9001 quality assurance standards for: Efficawellness, Thousand Oaks, CA, USA

For a complete Certificate of Analysis (COA), more information and a complete list of references for this formulation visit www.efficawellness.com/cognitive.