

# Whole Hemp Cream

## w/Biologically Active Terpenes

### Botanical Concentrates & Nutrients

Our **Whole Hemp Cream**, packed with a wide variety of well-known healing ingredients for the skin, is truly a complete skin nourishing formula. All the ingredients have been chosen to work together in synergy. This is a perfect cream for alleviating chronic inflammation and its associated pain. It both repairs and moisturizes the skin. Most of the ingredients have long been used to treat skin problems such as eczema, psoriasis, burns, acne, cuts, wounds, scars, and infections. Their special synergistic effect promotes homeostasis, which brings the body into its natural balance. The formula is a good example of the “entourage effect,” usually associated with cannabis, in which cannabinoid compounds work together to enhance their activity. The whole hemp plant has been used—roots, stems, and leaves. These are power washed, cleaned, prepared & macerated (soaked) in coconut oil and glycerin, which help activate the CBD and related compounds of the body’s own endocannabinoid system, which are cannabinoids that are naturally produced in the body. Many of the ingredients in the cream are antibacterial, antiviral, antifungal, anti-inflammatory, and analgesic. This cream will relax the body and help to promote a good night’s sleep. Stress and anxiety levels can be regulated and modulated.

**CBD** (cannabidiol): In the formula are **200 mg per 4 oz. jar of CBD** (cannabidiol) and related cannabinoid compounds, with 0% THC. (Note: All hemp plants have between 0 and 0.3 or less THC). CBD is a small fat molecule of the endocannabinoid system; cannabinoids are master control compounds of the central nervous system, which is most important for the body’s homeostasis and many other functions. Cannabinoids regulate our mood and overall sense of well-being via the brain’s neurotransmitters; they also have important effects on cellular metabolism, the immune system and hormones. This allows important compounds to cross the blood-brain barrier, as well as contribute to intestinal tract efficiency. They activate serotonin receptors and help the body utilize dopamine.

The endocannabinoid system (which is a neural message network) provides a variety of benefits, such as alleviating anxiety, depression, headaches, fibromyalgia, arthritis, muscle cramps, inflammation, sleeplessness, and pain. Cannabinoids naturally adapt to and protect normal tissues. They show high terpene activity and can help mitigate the effects of opiate dependence and withdrawal, and PTSD symptoms. Anandamides (“bliss chemicals” such as serotonin, dopamine, etc.) are activated by endogenous compounds like CBD. Several journals, including *PubMed*, have published thousands of articles and studies on CBD and related compounds. The studies have found that CBDs can affect various aspects of well-being and have neuroprotection benefits. They help with immune system functioning and can provide relief for serious health issues such as epilepsy, seizures, Alzheimer’s disease, high pain levels, spinal cord injuries, trauma and many psychological and physical conditions.

**Organic coconut oil** is used as a base with glycerin. It is quite well-known for its healthful effects on the skin, as it is found in many skin products, including sunscreens. It mitigates UV radiation exposure from the sun. Its hydrating properties keep the skin soft and more youthful looking. It helps heal cuts and burns, reduces inflammation, and is good for conditions such as eczema and psoriasis. The lauric acid component protects against viruses and bacteria. When ingested, coconut oil metabolizes quickly providing good nutrient absorption. The emollient characteristics soften and nourish dry skin & hair.

**Organic vegetable glycerin** is derived from coconut oil with a long history of usage. It is a cleanser, toner, and humectant. It is good to use on dry skin, cracked heels, and scars. Like coconut oil, it acts as a carrier for CBD & other essential oil compounds. It helps all the ingredients work together.

**Org. Marula oil**, derived from a tree nut grown in Africa, is now found worldwide. It is a clear, light yellow oil with an aromatic smell. It absorbs quickly into the skin, providing revitalizing nourishment as it moisturizes and lubricates for joint support. It reduces blemishes and skin irritations, helping with bruises, scrapes, wounds, and acne. This stable oil contains Omega 3, 6, and mostly Omega 9, steric & palmitic fatty acids, plus vitamin C & E, and other antioxidants—quite an abundance of nutrients.

**Grapefruit seed ext.** Powerful broad-spectrum antimicrobial, all-purpose disinfectant cleanser & germ-killer. Antifungal properties help Candida to nail fungus. Like usnea, it is a natural preservative.

**Aloe vera inner fillet (200:1)**: Aloe vera has long been referred to as the “first aid plant.” These mucopolysaccharides contain the long-chain beneficial mannose sugars, which ironically help balance blood sugar. Altogether, there are over 200 active components having many therapeutic properties under its rind. This plant encourages cell growth and collagen production, which accelerates wound healing. Aloe is legendary for providing soothing relief against sun, wind, and heat burns. Rehydration of the skin increases solubility, allowing for wound-healing compounds to be absorbed. It aids against infectious diseases, scrapes, cuts, and wounds. Aloe super concentrate has multi-beneficial properties.

**Terpenes** are a whole class of aromatic, tiny, volatile, hydrocarbon compounds. There are over 50,000 different types, many closely related to each other, including over 200 that are found in the cannabis plant alone. Terpenes are what gives so many plants their distinctive aroma; they pleasantly engage our sense of smell. Terpenes are the well-known scents found in essential oils as well as the flavorful tastes of fruits and culinary herbs. Commercial terpenes are distilled from pine sap. Aromatherapy is based on the fragrances of many kinds of terpenes, providing numerous benefits: They elevate moods, relieve stress and anxiety, soothe nerves, relax muscles, and help provide for a good night’s sleep. They have cleansing, antimicrobial, antifungal, anti-inflammatory, analgesic (pain relief), antioxidant, and antiviral properties. They also magnify the synergistic components of this formula by potentiating it.

A good number of scientific studies indicate that terpenes synergize with cannabinoids to increase their therapeutic benefits, which is known as the “entourage effect.” Terpenes have cleansing properties and are easily absorbed into the skin. They work on the principle of diffusion, benefiting a wide area of tissue. In the brain, they elicit many responses to help regulate its activity. The study and testing of terpenes are still being developed, so that the knowledge base will continue to increase.

Our **Whole Hemp Cream** formula is composed of 7.82% terpenes derived from four essential oils—Tea tree, lemongrass, orange, and ylang-ylang, and the whole hemp plant. Terpenes are also found in the various herbal ingredients. Coconut oil, glycerin, and marula oil are used as carrier oils.

**Uses:** Used in products, terpenes help heal all types of skin infections and conditions. They are mood enhancers and help reduce stress, anxiety, and depression. The terpenes and essential oils found in **Whole Hemp Cream** address all types of emotional states. The small amount of flavonoids found in the essential oils together with terpenes benefit capillaries, increase blood flow, and oxygenate cells

and tissues. Terpenes are used topically, although some can be carefully used internally. To reiterate, terpenes can relieve pain and inflammation, promote relaxation and help promote a good night's sleep.

**Tea tree oil\*** (also known as melaleuca oil) is derived from the Australian tea tree. Like aloe vera, it is an all-purpose “medicine in a bottle.” It is high in terpenes, which is why it is called “Nature’s deodorizer.” Tea tree is used for treating fungal infections, boils, stings, wounds, and for helping skin conditions like acne, eczema, psoriasis, dandruff, itches, cold sores, warts, ringworm, and burns. It is used to treat gums and earaches, and it helps regenerate tissue. It can be sprayed to treat house mold.

**Organic lemongrass** is a very high terpene essential oil, helping reduce joint-muscle pain, headaches, and fever. This fragrant cleanser helps treat acne as well as fungal and yeast infections. It helps heal wounds and aids circulation, which creates a greater sense of wellness. Lemongrass has relaxing, soothing qualities. This oil contains B vitamins, A, and many minerals, which helps relieve cramps.

**Orange oil\*** is an aromatic favorite high terpene essential oil. It relaxes muscles which help to reduce inflammation. The oil cleanses in many ways, especially as an antimicrobial & antiseptic. Orange oil improves skin health and circulation which enhances mood, lifts spirit and supports a healthy appetite.

**Ylang-ylang oil\*** is a popular essential oil also with high terpene activity. Its aromatic relaxing and anti-inflammatory nature benefits circulation, heart health, and hypertension. Its antiseptic qualities make it a good insect repellent. Rubbed into the neck and temples, this oil can reinvigorate us.

**[Acerola](#)** (25% vitamin C, w/ bioflavonoids): Vitamin C is necessary for collagen formation, the building block of cell structure. It strengthens cell walls, and helps the skin stay soft, thus improving skin tone. Vitamin C repairs and replaces damaged tissues and helps heal wounds and scar tissue. Its important antioxidant qualities supports the body’s blood vessels. It helps control viral and bacterial infections. Vitamin C, along with vitamin E, protect against UV radiation and supports skin health.

**Vitamin D3** is an important antioxidant sunlight-produced vitamin that helps repair and protect the skin. It assists with vitamins A and C absorption as well as being a major co-factor for calcium and magnesium absorption. Vitamin D3 supports cellular growth and neuromuscular functioning. This vitamin helps improve bone density which contributes to preventing osteoporosis.

**Vitamin E** is a significant antioxidant helping the skin retain moisture as it plumps up fine lines and wrinkles. It improves skin conditions such as eczema, scars, sunburn, and brown/age spots. The vitamin slows the oxidative process as it regulates vitamin A, and works synergistically with vitamin C to protect against UV radiation. Vitamin E is important for both short- and long-term wound healing.

**[MSM \(Opti-MSM®\)](#)**: MSM is a naturally occurring simple sulfur compound known as “Nature’s beauty mineral.” This synergistic well-known ingredient in many skin products softens and hydrates the skin. MSM builds and strengthens collagen which helps damaged tissues heal. It has a calming effect on inflammation, accelerating the healing process, helping clear scar tissue, and soothing burns. It helps alleviate muscle spasms while reducing aches and pains. MSM lubricates joints and relieves joint swelling. It helps with recovery after a workout by reducing dehydration and stress. MSM synergizes with acerola (vitamin C) to improve blood circulation. With arnica, it improves and heals bruises.

**DMSO** is a strong compound that MSM is derived from; only a small amount (1% in the formula) is needed. It is a carrier agent that brings the entire formula deep into the skin and throughout the body. DMSO works with MSM to help heal burns, cuts, aches, pains, soreness, as well as nerve inflammation reduction. It hydrates dry, itchy skin, improves age spots, and often helps with allergy symptoms. Both MSM and DMSO improve flexibility, as well as workout recovery time and hydration.

**Arnica\*\*** is a whole plant concentrate. It is analgesic, often helping calm inflammation, soothing migraines and lesser headaches when applied to the temple or base of the neck. It reduces swelling and alleviates pain caused by bruises and contusions. Arnica is good for all kinds of skin conditions, including eczema and psoriasis; it speeds up the healing process. Also, it contributes to hair growth.

**Usnea\*\*** a frilly, beardlike lichen (algae & fungus combination) often found hanging down from bark and branches. The antiseptic and antimicrobial properties help heal wounds as well as helping stop the growth of bacteria and other pathogens. Its gentle action works deeply as it tones the skin. Like grapefruit seed extract and acerola/vitamin C, it contributes to preserving the formula.

**Organic horse chestnut** is well-known for reinforcing and supporting vein structure and capillary health. Being anti-inflammatory, it improves overall circulation and more acute microcirculation. It is good to use on varicose veins, and vein insufficiencies, skin redness, and spider veins.

**Organic calendula** has a cleansing, purifying and protective effect on the skin. It is antiseptic, can heal wounds, insect bites, and all types of skin infections, bruises, and swellings. Its anti-inflammatory nature eases muscle spasms and cramps. Calendula's moisturizing quality helps hydrate the skin.

## **Profile of terpenes found in Whole Hemp Cream**

(In addition to the common properties and characteristics previously described.)

### **Limonene**

- **Whole Hemp Cream** is very high in limonene. a key anti-inflammatory terpene that eases pain, as does tea tree oil, MSM, and, in fact, all of the formula provides pain relief.
- Heals wounds and infections; cleansing properties include improving acne to athlete's foot.
- Helps counter anxiety and stress, as does other terpenes.
- Regulates metabolism and aids in weight loss.
- Improves circulation and helps with digestive distress and digestive problems such as gut inflammation and heartburn; has a general protective digestive system effect.
- Limonene has a nice aroma, similar to citrus. This can also be found in orange oil, lemongrass oil, and tea tree oil (three of our four essential oils) as well as rosemary, pine needles and hemp.

### **Ocimene**

- Woody citrus overtones found in hops, mangos, mint, parsley, bergamot, lavender, tarragon.
- Anti-inflammatory effects occur in white blood cells through a variety of pathways.
- Antifungal effects seen with human-specific candida.
- Ocimene is a bronchodilator which eases congestion, coughing, and breathing issues.

## Myrcene

- Fragrant, with woody citrus-like flavor. This terpene is found in mango, ylang-ylang, hops, cannabis, verbena, and wild thyme. It mimics the analgesic effect of lemongrass tea.
- One of the most pronounced terpenes in cannabis.
- Has sedative and pain-killing properties; promotes relaxation and a good night's sleep.
- Enhances membrane penetration helping to relieve soreness, stiffness & pain.

## Sabinene

- Woodland spice aroma found in nutmeg, Norway spruce and bay laurel trees, tea tree, key lime, juniper, cassia & allspice. Sabinene gives black pepper its spiciness, stimulating digestion.
- Assists the circulatory system as well as improves liver functions.
- Has skin-soothing properties.

## Gamma-Terpinene

- Lemon aroma found in cardamom, marjoram, tea tree, cannabis hemp, coriander & oregano.
- Has a strong antioxidant effect.

## Alpha-Pinene

- Alpha-pinene smells like pine needles. It is found in conifers, turpentine trees, and citrus.
- Able to cross the blood-brain barrier where it can help as a memory enhancer.
- Helps prevent cell oxidation and damage. This bronchodilator helps open respiratory passages.

## Beta-Pinene

- Released by forest trees. Has a pine-like aroma; also smells like dill, parsley, and basil.
- Found in maritime pine, hops, cannabis, curcumin, and nutmeg.

## Camphene

- Isomer of Alpha-Pinene, found in hemp, camphor, ginger, citronella, fir, lavender, rosemary.
- Works with vitamin C; helps suppress coughing, contributes to cleaning the respiratory system.
- Helps inhibit biosynthesis of cholesterol.
- Soothes the nerves and provides pain and stress relief.
- Its strong analgesic properties ease sore muscles and help promote a good night's sleep.

## Terpinolene

- Piney, woody aroma, hints of citrus & spice found in tea tree, pine, fir, lilac, apple & cumin.
- Plays a key role in regulating health through the endocannabinoid system.
- Major component of tea tree oil having antimicrobial, antiseptic and relaxing properties.

## Phellandrene

- Pungent, fragrant aroma in turmeric, ginger, eucalyptus, pine, dill, garlic, cinnamon & pepper.
- Commonly used in Chinese medicine to treat fungal and bacterial infections.
- Pungent nature increases anti-depressive properties; fortifies the body to build natural defense.

\* Steam distilled    \*\* Wildcrafted

Formula made with Triple UV treated Structured Deionized Water.

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Deibel Labs Test Results

<b>TERPENE</b>	<b>MG PER GM</b>
Limonene	68.5046
CIS-B-Ocimene	4.0694
Trans-B-Ocimene	.3239
Myrcene	1.7211
Sabinene	1.4028
Gamma-Terpinene	1.2680
Alpha-Pinene	.6161
Beta-Pinene	.1893
Terpinolene	.0528
Camphene	.0459
A-Phellandrene	.0214
<b>Total Terpenoids</b>	<b>78.2153</b>

**Testing Methods and Additional Information**

- HPLC (Liquid Chromatography)
- GC (Gas Chromatography)
- MS (Mass Spectrometry)
- HS (Head Space; re: Material at top, residual)
- Plant's volatile functions help quantify terpenes
- Testing methods help to identify various components in the formula
- Tested on 5/4/2019

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