

Carolina Cannabinoid Supplement Products

New Recommended Supplements

Soon, Carolina Cannabinoids will be offering a collection of 4 new supplements. These supplements are directed at treating three conditions:

1. **Current Pain** – to reduce pain, as well as to reduce anxiety and facilitate sleep, with these benefits expected to be appreciated same day.
2. **Future Pain** – to reduce pain in the weeks, months and years to come, by reducing neuroinflammation, the driving force that transitions and maintains acute pain to chronic pain and is responsible for the *central sensitization* that magnifies the experience of pain over time.
3. **Systemic Inflammation (SI)** – to reduce the driving force, SI, behind the risk for developing the diseases associated with aging, including diabetes, fatty liver, heart attacks, strokes, Alzheimers and some forms of cancer.

The following are links to these aforementioned topics for further exploration; they will be developed further over the next few weeks.

- [Neuroinflammation](#)
- [Resolving Neuroinflammation](#)
- [Central Sensitization](#)
- [Systemic Inflammation](#)

Constituents Found in the Supplements

Anti-Inflammatory & Anti-oxidants:

COQ10

CoQ10 is essential for energy production in cells and may improve fatigue and non-restful sleep in certain conditions including fibromyalgia and long-hauler COVID. It is a powerful antioxidant that reduces oxidative stress and has been shown to have multiple beneficial effects.

Omega 3 (Alpha-linolenic acid (ALA))

Alpha-linolenic acid (ALA) is the most common *essential* omega-3 fatty acid, those the body can't manufacture but must get from food. They are an integral part of cell membranes and they provide the starting point for making hormones that regulate blood clotting, contraction and relaxation of artery walls and inflammation. Omega-3 fats help prevent heart disease and stroke, may help control lupus and rheumatoid arthritis, and may play protective roles in cancer

and other conditions. Early research suggests that they may be crucial for causing the resolution of inflammation.

PEA (Palmitoylethanolamide)

Palmitoylethanolamide (PEA) is made in the body but also found in foods such as eggs and milk. It is emerging as a new agent in the treatment of pain and inflammation which has demonstrated effectiveness for chronic pain of multiple types associated with many painful conditions, especially with neuropathic (nerve) pain, inflammatory pain and visceral pain such as endometriosis and interstitial cystitis.

Piperine

Piperine is a potent antioxidant that reduces free radical damage to cells and helps to lower the risk of chronic illnesses like atherosclerosis, cardiovascular disease, and neurological conditions.

Vitamin A

Vitamin A has been identified as an antioxidant and there is preliminary research suggesting it may additionally exert beneficial effects in another another way, by modulating gene expression via a transcription factor, PPAR γ to reduce inflammation. PPAR γ has also been identified as a mechanism for benefit with PEA and BCP (also included here), suggesting a possible synergistic benefit

Vitamin D3

Vitamin D is known to affect a number of inflammatory pathways associated with the development and persistence of chronic pain. It has been shown to help patients with chronic pain, especially headaches, low back pain, diabetic peripheral neuropathy and fibromyalgia.

Vitamin E

Vitamin E is a family consisting of two forms, the tocopherols and the tocotrienols, Vitamin E is known to have anti-oxidative, anti-inflammatory, anti-obesity, anti-hyperglycemic, anti-hypertensive and anti-hypercholesterolemic properties.

Tocopherols

Only tocopherol can correct vitamin E deficiency, which suggests that tocopherol is the form of vitamin E that the body needs most to function efficiently.

Tocotrienols

Current research indicates tocotrienols have greater antioxidant potential than tocopherols.

Vitamin K2 (MK7)

Vitamin K is a fat soluble vitamin found in two natural forms: Vitamin K1 and Vitamin K2. While the most common action of vitamin K is related to forming blood clots, vitamin K2 can also improve bone density and minimize the risk of fractures by enhancing the mineralization of bones. Additionally, Vitamin K has

anti-inflammatory activity that suppresses production of pro-inflammatory agents (cytokines).

Other Ingredients:

Coconut MCT Oil

MCT oil is made from a type of fat called medium-chain triglycerides (MCT). MCT molecules are smaller than most of the fats found in food, making them easier to digest and be absorbed into the bloodstream quickly to turn them into useful energy.

Flax Seed Oil

Flaxseed oil comes from flaxseed, an excellent source of an essential omega-3 fatty acid, alpha-linolenic acid (ALA). Omega-3 fatty acids help lower total blood cholesterol and low-density lipoprotein (LDL, or "bad") cholesterol levels), which may help reduce the risk of heart disease. In addition, there is evidence to suggest that they may assist the resolution of inflammation and systemic and neuroinflammation. This in turn may reduce chronic pain and suppress the transition of acute to chronic pain.

Soy Lecithin

Lecithin (alpha-phosphatidylcholine) is found in many foods but is not readily produced by the body. It is the main dietary source of choline which helps maintain cells and nerve transmission, lower cholesterol and reduce inflammation.

Botanical Extracts:

Black Pepper

Black pepper extract is rich in piperine (see above), but additionally it is also very rich in beta-caryophyllene (BCP), a terpene with important anti-inflammatory and analgesic properties.

Cinnamon

Cinnamon extract is high in cinnamaldehyde, a potent anti-inflammatory, which may also help reduce blood sugar and cholesterol. It is also rich in other highly potent polyphenol antioxidants. Compared to 26 other spices, the antioxidant activity of cinnamon outranks "superfoods" like garlic and oregano.

Ginger

Ginger extract has powerful components that regulate the production of insulin and may lower blood sugar levels. It also has cholesterol-lowering properties

that may help prevent heart-related diseases and strokes. Additionally, ginger is believed to have potent anti-inflammatory and anti-oxidant benefits.

Holy Basil

Holy Basil (Ocimum tenuiflorum) extract (not the same as sweet basil) is an adaptogen, which means it helps the body deal with stress. Based in Ayurvedic medicine, holy basil has antidepressant and anti-anxiety properties, purported to be as “calming as yoga.” It fosters clear thoughts, relaxation, and a sense of well-being. It is also believed to have anti-inflammatory properties that reduced arthritis pain and it may reduce blood sugar.

Nutmeg

Nutmeg *extract* contains Nutmeg is rich in anti-inflammatory terpenes, including sabinene, terpineol, and pinene. It also is rich in the active ingredient myristicin which has sedative properties to promote sleep.

Rosemary

Rosemary extract is a rich source of anti-oxidants and anti-inflammatory compounds and is purported to have analgesic, neuro-protective and anti-depressant properties. Additionally, it may improve memory and mental fatigue.

DMG

Dimethylglycine (DMG) is an amino acid found naturally in many foods such as beans, cereal grains, brown rice, pumpkin seeds, and liver. It is used to improve energy, boost the immune system.

Polyglycerol Esters of Fatty Acids (PEFAs)

Polyglycerol esters of fatty acids are used in foods as emulsifiers, agents that adsorb substances to form an oil–water interface to make substances water soluble and more easily absorbed in the digestive tract. No adverse effects of PEFAs at any dose have been observed in short-term, subchronic or chronic toxicity studies.

Cannabinoids:

CBD

CBD has anti-inflammatory, anti-convulsant, anti-psychotic, anti-oxidant, neuroprotective and immunomodulatory effects but does not produce mind-altering effects like euphoria. CBD is a neuroprotective antioxidant more potent than Vitamin C (ascorbate) or Vitamin E (tocopherol). CBD is also thought to support sleep and reduce nausea, particularly related to chemotherapy. CBD, in combination with THC, modulates some of the side effects of THC, including reducing THC-induced anxiety and euphoria.

THC

THC is noted for multiple purported therapeutic benefits, including effectiveness for neuropathic pain, headaches, sleep, nausea, inflammation and other conditions. THC is

20 times more anti-inflammatory than aspirin, twice as anti-inflammatory as hydrocortisone and it has well documented analgesic and anti-inflammatory benefits including arthritic and inflammatory conditions.