



Australia's Premier Supplier of Pure Emu oil and Skin Care Products

Australian 100% Natural Pure Emu oil

EMU OIL CAPSULES Omega 3, 6, 9

The Omega 3, 6 and 9 groups of fatty acids all contain essential fatty acids necessary for good health. The difference between them lies in the position of the first double bond from the methyl end or the Omega end of the carbon chain. As its name implies, the Omega 3 fatty acids have their first double bond at the 3rd position from the end of the chain, and likewise with the other two. Omega 6 has its first double bond at the 6th position from the end and Omega 9 has it at the 9th position from the end of the chain.

The following table represents the main fatty acids found in Omega 3, 6 and 9

Emu oil capsules main components of Omega 3, 6, 9		
Omega 3	Omega 6	Omega 9
alpha-linolenic acid ALA	Linolenic acid LA	Oleic acid OA
eicosapentaenoic acid EPA	Gamma-linolenic acid GLA	
docosahexaenoic acid DHA	Dihomogamma linolenic acid DLA	
	Arachidonic acid AA	

Omega 3

The most important 2 fatty acids in the Omega 3 family are EPA and DHA as these are found in emu oil capsules. Although DHA is important for pregnant and nursing mothers and for young children for healthy development of the brain and vision, EPA can be considered the most important for everyone else as it is necessary for the efficient functioning of the brain and the body at a cellular level.

The Omega 3's have anti-inflammatory and anti-coagulant properties as well as many other important health benefits. They reduce inflammation and can provide protection against cardiovascular disease, arthritis, skin conditions, depression and other mood-related disorders.

Omega 6

Although Omega 6 is generally classed as pro-inflammatory, paradoxically, GLA, when sourced dietetically, has anti-inflammatory properties. It can help the bloating and pain associated with PMS. It also maintains healthy skin, hair and nails and generally helps to bring about hormonal and emotional balance.

Omega 3 and Omega 6 interact with each other so the balance between them is crucial for good health. Together they affect the production of hormonal type messengers called eicosanoids, which has an impact on inflammation in the body and all functions at a cellular level.

Omega 9

Omega 9 also has many preventative qualities as its main component, Oleic acid, helps to reduce the risk of arteriosclerosis, cardiovascular disease and stroke. Emu oil contains both Omega 6 and Omega 9 in the form of Gamma-linolenic acid and Oleic acid and is in fact, one of the best sources of GLA. Pure EPA therefore contains a blend of all 3 of the important fatty acids EPA, GLA and OA making it an excellent choice of omega 3 6 9 supplement.

Benefits of Omega 3 6 9

Omega fatty acids are polyunsaturated fats. They are healthier than saturated fats and have many metabolic functions. There are many benefits of omega 3 6 9 supplementation.

Omega 3 and omega 6 fatty acids are essential fatty acids (EFA's). Our bodies cannot manufacture them, and we must consume them in our diets. Omega 9 fatty acids are not essential. Our bodies need omega 9 fats, but we can manufacture them from other sources. Omega 3 fatty acids prevent heart disease and the complications of heart attack. People who take omega 3 fatty acids have a lower mortality rate after heart attack than those who do not.

Omega 3 EFA's improve cardiac risk factors, and help prevent CHD. They normalize lipid levels, lower blood pressure and improve glucose metabolism. Omega 3's may be helpful in a number of other conditions, to. Rheumatoid arthritis, depression, autism, and many other conditions may be improved by taking omega 3 EFA's. They are necessary for growth and development, especially in the development of nervous tissue, and may improve cognitive function and emotional health.

Omega 6 fatty acids compete for enzymes with omega 3 EFA's, so the amounts of the two need to be properly balanced. Less research has been done on omega 6 EFA's than on omega 3's. Most omega 6 fatty acids produce an inflammatory response that may be necessary for healthy immune system function. Research is beginning to indicate that one omega 6 EFA is, however, a powerful anti-inflammatory agent, and may be even more important for healthy hearts than omega 3 oils.

Omega 9, as mentioned, is not an essential fatty acid. Omega 9 oils are monounsaturated, and are found in olive oil. Olive oil is known to have beneficial health effects, and omega 9 oils may be necessary for healthy immune system functioning.

The benefits of omega 3 6 9 include all of the benefits of all three types of fatty acid. The amounts and ratios of each fatty acid are balanced to optimal levels of each. Taking an omega 3 6 9 supplement is a good way to ensure that you are getting essential nutrients for your good health. Pure EPA is a fantastic balance of omega 3 6 9 !

Areas where we are seeing success are:

Arthritis:

Temporary relief of arthritic pain	Reduction of joint inflammation associated with arthritis
Reduction in joint swelling associated with arthritis	Increased joint mobility associated with arthritis

Other areas of assistance:

Antioxidant effects	Prevents cardiovascular disease
Hypertension	Menopausal Symptoms & PMS
Sunburn protection	Reduction of hay fever symptoms
Assists with skin irritations	Relief with upset stomach
Assists in the regulation of blood pressure	Reduction in cholesterol levels

Scientific References

Inflammopharmacology, Vol,6.No.6.pp.1-8 (1998)

Kluwer Academic Publishers Netherlands.

Inflammopharmacology, Vol,7.No.3.pp.227-247 (1999) VSP 1999.

Conjugated Linoleic Acid (CLA) Supplements

A double-blind, randomized, placebo-controlled study, published in the December 2000 issue of the *Journal of Nutrition* found that CLA reduces fat and preserves muscle tissue. According to the research project manager, an average reduction of six pounds of body fat was found in the group that took CLA, compared to a placebo group. The study found that approximately 3.4 grams of CLA per day is the level needed to obtain the beneficial effects of CLA on body fat.

Dr. Michael Pariza, who conducted research on CLA with the University of Wisconsin-Madison, reported in August 2000 to the American Chemical Society that "It doesn't make a big fat cell get little. What it rather does is keep a little fat cell from getting big." Pariza's research did not find weight loss in his group of 71 overweight people, but what he did find was that when the dieters stopped dieting, and gained back weight, those taking CLA "were more likely to gain muscle and not fat." In a separate study conducted at Purdue University in Indiana, CLA was found to improve insulin levels in about two-thirds of diabetic patients, and moderately reduced the blood glucose level and triglyceride levels.

CLA has been the subject of a variety of research in the past several years, and findings also suggest that some of the other benefits of CLA include the following:

- **Increases metabolic rate** -- This would obviously be a positive benefit for thyroid patients, as hypothyroidism -- even when treated -- can reduce the metabolic rate in some people.
- **Decreases abdominal fat** -- Adrenal imbalances and hormonal shifts that are common in thyroid patients frequently cause rapid accumulation of abdominal fat, so this benefit could be quite helpful.
- **Enhances muscle growth** -- Muscle burns fat, which also contributes to increased metabolism, which is useful in weight loss and management.
- **Lowers cholesterol and triglycerides** -- Since many thyroid patients have elevated cholesterol and triglyceride levels, even with treatment, this benefit can have an impact on a thyroid patient's health.
- **Lowers insulin resistance** -- Insulin resistance is a risk for some hypothyroid patients, and lowering it can also help prevent adult-onset diabetes and make it easier to control weight.
- **Reduces food-induced allergic reactions** -- Since food allergies can be at play when weight loss becomes difficult, this can be of help to thyroid patients.
- **Enhances immune system** -- Since most cases of thyroid disease are autoimmune in nature, enhancing the immune system's ability to function properly is a positive benefit.

If you're interested in taking CLA to help with weight loss, keep in mind that it's not a magic pill, and you will need to start a program of diet and exercise in order to successfully lose weight and keep it off

Medical Studies on Asthma and the Scientific Basis of the RAINS Study

Essential Fatty Acids - Their Role in Asthma

It is accepted that virtually everything humans experience via the gastrointestinal, or respiratory, tract, has either a positive or negative effect on the construction, repair, maintenance or renewal of our cellular structure. Countless studies have indicated the destructive roles which chemicals, food additives, processed foods, drugs, pollution, radiation and other sources of oxidative stress, play in the oxidative damaging of cells. This oxidative damage is also caused by the immune system's response to microscopic invaders - viruses, bacteria, molds, etc.

The immune system uses oxidation to kill the invaders. Unfortunately, in the heat of battle, "friendly fire" also damages and kills cells through what is known as oxidative bursts. This damage of our cells leads to the inflammation, which is now understood to be the underlying cause of the disease known as asthma.

Basic Building Blocks of Life

It is well documented that the basic building blocks of cells consist of minerals, vitamins, amino acids, essential fats and water, all of which help to build cells and our immunity and therefore, our resistance to the environment.

A primary example is the process by which essential fats help build cellular membranes. All cells in the human body are enclosed in a membrane primarily comprised of essential fatty acids (EFA's), in the form of compounds known as phospholipids. Phospholipids largely determine the fluidity and integrity of cell membranes. The **kind of fat** consumed determines the type of phospholipid in the cell membrane. Phospholipids made of saturated fat or *trans* fatty acids are significantly different inferior than those made from EFA's. Carpentier and colleagues report that recent advances indicate a great potential for omega-3 EFAs incorporated into membrane phospholipids to modulate cell response to various stimuli and to influence several intracellular metabolic processes.

Furthermore, some of these EFAs directly influence the production and the action of important mediators, the eicosanoids. In practical terms, an increased intake of omega-3 EFAs may reduce inflammatory and thrombotic responses while protecting tissue microperfusion and immune defenses. The researchers also reported that uptake of omega-3 EFAs and liposoluble vitamins was fairly fast and occurred in several types of cells, leading to an efficient incorporation of omega-3 EFAs in cell membranes within a few hours.

The role of EFA's and their by-products have been shown to be of significance in asthma. Studies of EFA's show that omega-3/omega-6 ratios and their consequential offspring, prostaglandins, play pivotal roles in asthma.

This balance between omega-3 and omega-6 plays a direct role in inflammation in the body, this balance can be upset by a variety of dietary factors:

- Nutrient deficiency in the production of the delta 6 desaturase enzyme
- Deficiency of omega-3 fatty acids
- Inclusion of trans fatty acids
- High carbohydrate intakes leading to increased insulin
- Ingestion of red meat and/or egg yolks high in arachidonic acid
- Excess oxidation