Krill Oil

designs for health®
Science first.

Marine Oil Full of Life's Necessities

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KRILL OIL CAN HELP SUPPORT:

- healthy brain function
- healthy liver function
- healthy LDL, HDL and triglyceride levels
- nervous, cardiovascular, gastrointestinal, respiratory, reproductive and immune systems
- inflammation including osteo and rheumatoid arthritis, ulcerative colitis, crohn's, asthma
- skin cancer protection
- antioxidant protection
- reproductive health
- PMS and Menopause
- optimal omega 3: omega 6 ratio
- athletic endurance and performance

Krill are the world's largest animal biomass. They feed the largest animal in the world, the blue whale. Krill Oil extracted from these shrimp-like crustaceans contains many nutrients essential to living creatures. Krill Oil contains three important phospholipids; phosphatidylcholine, phosphatidylinositol, and phosphatidylethanolamine. These phospholipids contain a high proportion of EPA and DHA, and resemble human brain phospholipids. DHA is so essential to infant brain development that it is now being added to infant formulas. It is no wonder that Krill Oil is the most sought after marine oil on the market today. This nutraceutical oil should be a staple for old and young alike.

Krill Oil Has Many Benefits

Remember that the human brain contains the most phospholipid rich membranes in the body, especially high in DHA for membrane fluidity. Krill Oil's phospholipids naturally contain EPA and DHA, anti-inflammatory fatty acids that hold the membranes in healthy balance against toxic, oxidative, and inflammatory attack. As a matter of fact, the phospholipids are bound to astaxanthin, known to cross the blood-brain barrier! Since the phospholipids in Krill, including phosphatidyl choline, are natural emulsifiers, they facilitate the digestion and absorption of the healthy lipids in Krill Oil. While practically all choline supplements are derived from plant sources such as soy, choline from Krill is animal based.

Is Krill Oil Easily Oxidized?

Omega 3 Fatty Acids are known to be sensitive to oxidation, however because nature provided Krill with many powerful antioxidants, Krill Oil is remarkably stable. In addition to its high omega 3 to omega 6 profile, Krill Oil contains a rich network of antioxidants including Vitamin E, all trans retinol Vitamin A, beta carotene and the carotenoid relatives, canthaxanthin and astaxanthin. These antioxidants work synergistically with other bioactive compounds in Krill Oil to support peak functioning of the brain, liver, skin, and other organs. One comprehensive study found astaxanthin to be extremely effective at quenching singlet oxygen radicals in membranes.[11] In another study, astaxanthin was approximately as effective as canthaxanthin and about 50% more effective than beta-carotene and zeaxanthin in preventing fatty acid peroxidation.[12] A research study performed at Tufts University in Boston found that when astaxanthin or canthaxanthin were added to rat liver microsomes, these antioxidants greatly inhibited radical-initiated lipid peroxidation, equal to that of alpha-tocopherol and to a greater extent than beta-carotene.[13] Astaxanthin has also been shown to protect LDL from oxidation.[1]

Designs for Health's Krill Oil is made using a unique cold-extraction process that converts it into a stable oil. This process protects the lipids from alteration and avoids peroxidation. Our own independent third party testing showed this claim to be accurate - its peroxide value is 0.00, P-Anisidine is 0.1 and its oil stability index is 16! It even proved itself to be free of heavy metals and organohalide pollutants. It passed our test with flying colors! According to the ORAC test, Krill Oil is 300 times higher in antioxidant capacity than Vitamins A and E alone.

Improving Allergic and Inflammatory Conditions

Studies consistently demonstrate that marine oil improves morning stiffness and joint tenderness in patients with rheumatoid arthritis. Researchers believe this therapeutic benefit stems from omega-3's ability to reduce levels of hormone-like compounds called prostaglandins and leukotrienes that aggravate the inflammation associated with rheumatoid arthritis.[5,6,7] In addition to rheumatoid arthritis, studies indicate omega-3 essential fatty acids can improve other inflammatory diseases as well including ulcerative colitis, crohn's disease, eczema, acne, psoriasis and asthma.

New Exciting Research on Krill Oil

A recently published double-blind, controlled, randomized trial on 70 women showed that Krill Oil dramatically improved all emotional PMS symptoms including feeling overwhelmed, anxiety, stress, irritability, and depression. After 45 and 90 days the NKO™ Krill Oil group on 2 g per day, had statistically significant differences in both emotional and physical symptoms including breast tenderness, joint pain and dysmenorrhea. The fish oil group after 90 days only had statistically significant reduction in weight gain, swelling and abdominal pain.[14] Study subjects reported using 50% fewer analgesics on a dose of 2 Krill Oil gelcaps daily. A recent study on 120 human subjects (results to be published) compared the effects of Fish oil vs. Krill Oil on hyperlipidemia. Krill Oil at a dose of 1.5 grams per day was more effective than fish oil at reducing glucose levels, total cholesterol, LDL, Chol:HDL ratio and at raising HDL levels. A 3 g dose of Krill Oil daily lowered triglyceride levels as well. A mice study showed that Krill Oil can significantly prevent the incidence of skin cancer caused by chronic exposure to UV radiation.

As if that's not enough, Krill Oil also contains sphingomyelin, a component of myelin sheath that surrounds nerve cells. Research on Krill Oil's ability to improve MS and mercury's damage to nerve cells is surely needed.

Safety

A recent review on the safety of omega-3 fatty acids by the US FDA concluded that a daily intake of EPA and DHA of up to 3 g is GRAS (generally recognized as safe). Dosages as high as 3-8 g of omega-3 fatty acids per day show virtually no significant adverse effects.[15,16,17] Safety studies on mice reveal no adverse effects from Krill Oil when given the human equivalent of 9 g of EPA and DHA per day, or 7-11 times the recommended dose for 6 months. 25 adult human volunteers were given 2 gelcaps of Neptune Krill Oil™ three times per day for 2 months. Each gelcap contains 1 gram of Krill Oil. No serious side effects or negative changes in blood chemistry occurred. Some of the observed benefits include increased ability to concentrate, decreased seasonal allergy symptoms, increased skin hydration, improved hair texture, decreased joint discomfort and minimized PMS emotional and physical symptoms. Krill Oil has been proven safe even at dosages as high as 10 grams per day.[9]

Dose Suggestions

1 to 6 daily. The fat-soluble vitamins in Krill Oil are best absorbed with food but since it contains phospholipids which help with fat emulsification and absorption, taking with food is not essential.

Contraindications

Not to be taken by shrimp allergic individuals. May decrease need for blood thinning medications such as Coumadin or Warfarin. Not recommended prior to surgery.

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