



Krill Oil

Stock #1516-3 (60 softgels)

Krill oil is extracted from Antarctic krill (*Euphausia superba*), a shrimp-like crustacean containing multiple active ingredients that work synergistically. Krill oil is a rich source of the omega-3 fatty acids, EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). Krill also contains the powerful antioxidant carotenoid, astaxanthin, which gives krill oil its red color. Krill oil exhibits a unique nutritional profile in that the omega-3 fatty acids EPA and DHA are bound to phospholipids that greatly facilitate their absorption through the intestinal wall. Studies show that phospholipid-bound omega-3 fatty acids have increased bioavailability, as well as better delivery to the brain, than omega-3 fatty acids from fish oil. A recent double-blind trial confirmed that krill oil significantly increased plasma EPA and DHA concentrations compared to fish oil in overweight and obese men and women.¹⁻⁹

Evidence from animal and human studies indicate that the benefits of krill oil may surpass those of fish oil for reducing the risks of cardiovascular disease. Krill oil has been shown to significantly reduce blood lipid levels at lower doses compared to fish oil. Krill oil was also found to be significantly more effective than fish oil for reducing glucose (blood sugar), triglycerides, and LDL levels in patients with hyperlipidemia (high blood cholesterol and triglycerides). In addition, krill oil has been shown to significantly reduce levels of C-reactive protein (CRP), which is an indicator of systemic inflammation and cardiovascular disease. CRP also serves as an important predictor of stroke risk, and is associated with an increased risk of dementia. Furthermore, astaxanthin, found in krill oil, demonstrates cardio-protective benefits and has been shown to significantly reduce dyslipidemia (elevated cholesterol or triglycerides), oxidative stress (free radical damage) and CRP levels after oral supplementation. Astaxanthin also crosses the blood-brain barrier and exhibits neuroprotective (brain-protecting) effects. Thus, the collective benefits of krill oil appear to be superior to fish oil for promoting both cardiovascular and brain health.^{1,2,4,7,10-16}

Krill oil may also prove effective for the management of inflammation and arthritic diseases. Krill oil's anti-inflammatory effects most likely stem from the fact that each of its active ingredients demonstrates either direct or indirect anti-inflammatory properties—phospholipids protect cell membranes from toxins and free radical damage; EPA and DHA promote the release of anti-inflammatory prostaglandins; and astaxanthin inhibits the production of pro-inflammatory prostaglandins. Human studies have demonstrated remarkable effects of krill oil on inflammation in patients with arthritis. For example, a double-blind, placebo-controlled study found that krill oil significantly inhibited inflammation and reduced arthritic symptoms and pain scores in patients with rheumatoid arthritis and osteoarthritis. Patients taking krill oil were also able to significantly reduce their consumption of NSAIDs (non-steroidal anti-inflammatory drugs). With no adverse reactions reported for krill oil, researchers concluded that krill oil appears to be a safe and effective alternative to NSAIDs for the treatment of inflammation and chronic inflammatory diseases.^{1-3,6,17}

NSP's Krill Oil contains added vitamin K₂ and fish oil.

Vitamin K, a fat-soluble vitamin, occurs naturally in plants (as vitamin K₁) and in meats and fermented foods (as vitamin K₂). Vitamin K is essential for blood coagulation (blood clotting), and appears to be an important cofactor for treating and/or preventing atherosclerosis and calcified arterial plaque. Thus, vitamin K may help reduce the risk of cardiovascular disease by reducing coronary calcification. Recent research also indicates that vitamin K plays a significant role in bone metabolism. Several human trials have shown that vitamin K is effective in the treatment of osteoporosis. In fact, vitamin K has been approved in Japan since 1995 for the treatment of osteoporosis, as it has been shown to maintain bone mineral density and inhibit new bone fractures.¹⁸⁻²⁵

Fish oil - Modern research indicates that omega-3 fatty acids found in fish oils are crucial to the prevention and treatment of a variety of diseases, including cardiovascular, neurological and inflammatory disorders. Omega-3 fatty acids, particularly EPA and DHA, demonstrate clear cardioprotective (heart-protecting) effects, such as inhibiting platelet aggregation and lowering serum triglyceride levels. Omega-3 fatty acids, which are highly concentrated in the brain, are especially important for cognitive function (brain performance and memory) and behavior. Both EPA and DHA produce neuroprotective metabolites, with research indicating that deficiencies and imbalances of omega-3 fatty acids can have significant effects on brain function. In addition, placebo-controlled trials using fish oils in chronic inflammatory diseases have revealed significant benefits, including decreased disease activity and reduced use of anti-inflammatory drugs. Studies have shown that EPA and DHA reduce levels of pro-inflammatory substances and demonstrate equivalent pain-relieving effects compared to ibuprofen in decreasing non-surgical arthritic neck and back pain. Furthermore, fish oil supplementation may be beneficial for the skin. Research has shown that EPA protects the skin against UV irradiation-induced damage, while DHA has been shown to produce significant clinical improvement in atopic eczema. Data also suggest that omega-3 fatty acids may help prevent skin cancer.^{4,7,26-35}

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