

## **Tri-Krill™**

The triple benefit krill oil  
With 6 mg of Astaxanthin, the highest of all krill supplements



### **What is so special about Tri- KRILL™?**

Tri- KRILL™ oil contains no less than 42% Phospholipids and 1500 ppm of Astaxanthin, the highest of any krill oil product on the market. Every batch is tested for contaminants and heavy metals. We feel we have set the highest standards for quality in our krill oil. It is also independently tested with 3rd party testing.

What is new about Tri-Krill? We use only the best ingredients

### **How is Tri- KRILL™ Oil manufactured?**

Our Tri- KRILL™ Oil is manufactured at a state of the art manufacturing facility that has been working with nutritional lipids for over 12 years. This facility is recognized worldwide for its standards and the quality of lipids they produce.

### **How is the Krill Oil harvested?**

Each trawler is allowed to harvest during the main season and only about 1% of the allowable limit is actually harvested. Krill harvesting is among the most regulated of any harvesting or fishing methods in the oceans.

### **Is the krill population in the oceans sustainable?**

Our krill is made from Euphausia superb (Antarctic Krill). This is one of the earth's most abundant and sustainable organisms. Antarctic krill is the largest biomass on earth. The total quantity is estimated to be between 500 and 800 million tons. The weight of this biomass is almost double that of all the humans on earth.

The krill harvest is well below conservative international catch guidelines. Most of the harvested krill is used for fish feed in salmon farms and the quantities harvested are less than 1% of the 1% harvested annually.

### **What Is Astaxanthin?**

Krill oil contains high levels of one of the most powerful natural antioxidants called Astaxanthin. Astaxanthin is a carotenoid molecule from the same family as beta-carotene, lycopene, and zeaxanthin, though astaxanthin appears to be more active in quenching superoxide, hydroxyl, and other radical species.

Recent studies suggest that astaxanthin has anti-inflammatory action, inhibiting cytokine cascades in a number of trials of cardiovascular health, respiratory health, joint health, athletic performance, and others.

Astaxanthins are what gives salmon its red color. Krill get their astaxanthin from small phytoplankton, their primary source of food.

While krill contain natural levels of astaxanthin, we enrich our Tri- KRILL™ with additional astaxanthin to the highest levels available. Our Tri- KRILL™ contains 12 mg. of astaxanthin. This is in recognition of the tremendous antioxidant value astaxanthin adds to both product stability and clinical outcomes.

## Can people take Krill Oil if they are allergic to shellfish?

Absolutely not. Talk with your physician if you suspect you are allergic to shellfish or fish. Some krill oil blends also contain some fish oil as a carrier, and fish can end up in the krill biomass as a by-catch. So, if you are allergic to fish do not take this product.

## What is Choline and what health benefits do we get?

Choline is found in krill phospholipids as part of the phosphatidylcholine molecule. Choline is not found in fish triglycerides. Choline has critical functions as a precursor to the neurotransmitter acetylcholine. Acetylcholine is the neurotransmitter that is probably most well-known for its involvement in Alzheimer's disease.

If we have adequate levels of choline, we support the acetylcholine neurotransmitter system, which protects attention, focus, memory, and even muscle function. Choline is also one of the body's most important methyl donors, contributing one-carbon units much like folic acid and vitamin B12.

## Is Choline Deficiency Widespread?

The added benefit of choline in krill oil cannot be underestimated. In one recent study, 86.2% of female medical students and 90.0% of male medical students did not consume the recommended daily amount of choline. These amounts have been set by the Institute of Medicine of the National Academy of Sciences at 425 to 550 mg/day. Krill oil phospholipids provide additional dietary choline, which contributes to the daily need.

## What studies have been done?

### Areas of Research

#### Arthritis

A study in the Journal of the American College of Nutrition examined krill oil (300 mg daily) compared to a placebo and found that krill oil was effective at reducing arthritis symptoms and inflammation.

#### Cardiovascular

Human clinical studies have demonstrated astaxanthin's cardiovascular benefit to include: a significant decrease in blood serum triglyceride and increase in HDL-cholesterol levels with corresponding increase in serum adiponectin, independent of age and BMI; significant increase in ankle brachial pressure index and a significant reduction in both systolic and diastolic blood pressure in healthy postmenopausal women; significantly increased peripheral capillary blood flow via human blood rheology; reduced lipid peroxidation in healthy non-smoking men, aged 19-33. In addition, pre-clinical animal studies support the human findings as well as establish mechanisms of action.

#### Physical Endurance and Muscle Recovery

Research has demonstrated the relationship between astaxanthin supplementation and improved muscle endurance and recovery. In support of this research several studies have suggested possible causal relationships. Two studies, one human and the other animal showed significantly lower serum lactate levels after exercise with use of astaxanthin. In another animal study astaxanthin was found to attenuate exercise-induced damage in skeletal and heart muscle, including inhibition of neutrophil infiltration into the tissues. This study also showed inhibition of creatine kinase activity by the astaxanthin group. Also, in a human rheumatology study, astaxanthin supplementation showed significant increase in peripheral blood flow. \*

## Eye Fatigue

This area has been well studied with eight human clinicals demonstrating reduced eye fatigue with AstaREAL astaxanthin showing significant improvement in accommodation, visual acuity and critical flicker fusion.

Furthermore, two animal studies where uveitis was induced demonstrated significant reduction in ciliary body inflammation in subjects administered astaxanthin. \*

## Skin Health

Human studies performed in both Japan and the US involving supplementation with AstaREAL astaxanthin demonstrated significant improvement in skin elasticity, increased moisture content and a reduction in the appearance of fine lines and wrinkles.

## Immune Response

In a study involving an astaxanthin-rich algal meal and vitamin C supplementation with animal subjects, lipid peroxidation significantly decreased and additionally an inhibitory effect was seen on *H. pylori* growth in vitro. The observed shift from a Th1-response to a mixed Th1/Th2-response is a suggested part of the explanation for the mechanism behind astaxanthin's effect on *H. pylori* infected subjects. \*

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Disclaimer: Information found is presented in good faith with no guarantee or obligation as to accuracy and no assumption of liability.

### Supplement Facts

Serving size: 1 Capsule  
Servings Per Container: 60

Amount Per Serving	% Daily Value
Calories 3.5	
Calories from Fat 3.5	
<b>Tri-Krill™ Krill Oil Complex</b>	500 mg **
Naturally occurring Astaxanthin from krill oil	40 mcg **
AstaReal® Astaxanthin	5.96 mg **
Phospholipids (with bonded Omega-3)	200 mg **
Total Omega-3 Fatty Acids	110 mg **
EPA (eicosapentaenoic acid)	60 mg **
DHA (docosahexaenoic acid)	28 mg **

\*\* Daily Value not established.

Ingredients: 100% Pure *Euphausia superba* Antarctic krill oil. *Haematococcus pluvialis* astaxanthin, Cellulose, Water.  
Exclusive Liqui-Krill™ capsule technology for stability and freshness.

Manufactured for NWC Naturals®  
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Contains shellfish. Use caution if allergic to shellfish.



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