

*For Health Care Professionals Only.*

## OMEGA-3 FISH OIL-FOR ADULTS

Modern diets are lacking in these essential omega 3 fatty acids, and working these nutrients back into diets can impact many health aspects. These fatty acids get incorporated into cell membranes, and from there they influence a wide variety of cellular functions: a) They increase flexibility in the cell membrane, allowing for better communication, cell function, and communication with other cells; b) they increase ability to regulate physiological functions by creating a unique composition of the receptor environment (for hormones, neurotransmitters, bioactive peptides (proteins), etc.); c) they increase therapeutic effects from a beneficial ratio of fatty acid metabolites, or eicosanoids (prostaglandins, thromboxane, leukotrienes, etc.; d) they increase signaling power for the immune system, i.e. influence on cytokines, macrophages, prostaglandins, leukotrienes, MHC complex, etc.; they alter gene expression of cytokines, adhesion molecules, nitric oxide synthase, etc.; and e) they are needed for development and maintenance of the brain and nervous system.

The typical American diet has a very high omega 6 to omega 3 ratio, and this ratio is not conducive to the support of health maintenance. Since we lack the ability to efficiently convert alpha linolenic acid to the longer chain fatty acids (EPA and DHA) with many of the reported health benefits, it may be beneficial to provide these long chain fatty acids already preformed, as they come in fish oil. Thanks to a unique process, molecular distillation of pharmaceutical grade fish oil, a highly concentrated amount of EPA and DHA is now available in supplement form.

***All Omega 3 oils are molecular distilled, pharmaceutical grade, from cold-water wild fish and have been independently tested for mercury, PCB's, Dioxins, Furans and rancidity and comply with the CRN Monograph.***

**Researched by and formulated for: DRS. DAN MURPHY D.A.B.C.O. AND HAROLD MCCOY D.A.C.S.**

### **COMPLETE OMEGA-3 ESSENTIALS™:**

Nutritional support for a multitude of health categories, including chronic pain/swelling; inflammation; cardiovascular; osteoarthritis; normal brain and nervous system development/function; immunoregulation; disc herniation; depression; autoimmune (i.e. RA, Lupus, etc.); diabetes; insulin sensitivity; Alzheimer's; colitis; anti-aging; cholesterol; triglycerides; plaque formation; MS; asthma; allergies; psoriasis; dermatitis; organ transplant survival; kidney function; vaccination, etc.

Each two soft gel capsules contain\*\*: EPA 600 mg, DHA 300 mg, ALA (Alpha-Linolenic Acid) 100 mg, Vitamin E (D-Alpha Tocopherol natural 100 i.u.,) Mixed Natural Tocopherols 4 mg.

90 capsules

Product #1514

**Recommendation:** 2 capsules daily or as directed.

\*\* These are the absolute freshest oils available, and have been encapsulated in opaque capsules (colored with natural carob) to further preserve and protect this unique freshness from ultra-violet light.

**Health benefits:** One long detailed article (23 pages), containing 172 references, touts some of the many health benefits of fish oil. The benefits include positive influences on: **Inflammation, pain, swelling, kidney function, MS, rheumatoid arthritis, psoriasis, autoimmune diseases, cardiovascular disease, organ transplant, asthma, diabetes, inflammatory bowel, hypersensitivity/allergy, non-rheumatoid joint inflammation, gene expression, immune cells, fever, erythema, vascular permeability, edema,** and others (Calder PC. Immunoregulatory and Anti-inflammatory Effects of n-3 Polyunsaturated Fatty acids. *Brazilian J Med and Biol Res* 1998;31(4):467-90.)

This article also pointed out that fish oil acts on receptor operated calcium channels. Calcium channel blocker drugs, used to regulate **high blood pressure**, operate on a similar mechanism. Additionally, the effect on gene expression, of factors such as cytokines, adhesion molecules, and nitric oxide synthase, can affect cell membrane receptor proteins which alters the membrane's sensitivity to inflammatory mediators. This is yet another way in which fish oil can modulate the inflammatory response.

**Fibromyalgia:** Fibromyalgics are suspected of having blood coagulation defects, where their blood is too thick and not able to deliver nutrients appropriately, or remove toxins efficiently. The blood thinning effect of fish oil allows more oxygen delivery to the tissues and therefore more support for tissue repair.

**Allergy:** Dietary intake of the omega 6's (arachidonic acid) was positively associated with seasonal allergic rhinoconjunctivitis (Wakai, K. et al. Seasonal allergic rhinoconjunctivitis and fatty acid intake: A cross-sectional study in Japan. *Ann Epidemiol* 2001 Jan;11(1):59-64.) Omega 3's from fish oil competitively inhibit the production of all the inflammatory modulators from omega 6's. Other atopic diseases such as bronchial asthma and atopic dermatitis are characteristically associated with an imbalance between different types of T cells and cytokines, leading to an increase of IgE and histamine, which gives rise to allergic symptoms (Strannegard O and Strannegard I.L. *Allergy* 2001;56(2):91-102).

**Stroke:** In a study of almost 80,000 women in the Nurses' Health Study, those with higher intakes of fish had a lower risk of stroke. In a subgroup of the study, significantly reduced risk of thrombotic infarction was found in the women who ate fish 2 or more times per week. Mechanisms may include: inhibition of platelet aggregation, lowered blood viscosity, suppressed formation of leukotrienes, reduction of plasma fibrinogen blood pressure levels, and reduction of insulin resistance (Hiroyasu I, et al. Intake of fish and omega 3 fatty acids and risk of stroke in women. *JAMA* 2001;285(3) Jan 17:304-312).

**Sudden death/arrhythmia:** A randomized trial suggested that dietary supplements of omega 3's might reduce the risk of sudden death among survivors of a heart attack. The main cause of sudden death among these men in the study was cardiac arrhythmia. Other evidence supports the association of the omega 3's with reduced risk of sudden death

among men who have not experienced prior cardiovascular disease (Albert, C. et al. Blood levels of long chain n-3 fatty acids and the risk of sudden death. NEJM Apr 11, 2002;346(15):1113-1118.)

**Bipolar disorder/depression:** Omega 3 fatty acids improved the short-term course of illness in a preliminary study of patients with bipolar disorder. The omega 3 group performed better for nearly every outcome measure (Stoll, A.L. et al. Omega 3 fatty acids in bipolar disorder: a preliminary double blind, placebo-controlled trial. Arch Gen Psychiatry 56(5):407-12). “Fish oil blocked the abnormal signaling in the brain which we think is present in mania and depression” – Andrew Stoll, lead researcher in a study published by the Am Med Assoc Arch Gen Psychiatry (Fatty oil in fish eases depression. Reuters May 14, 1999). Also, “Stoll said **omega 3 fatty acids boost levels of the neurotransmitter serotonin in the brain** – similar to the effect of popular anti-depressants such as Prozac”. One of the mechanisms may be that the omega 3’s replenish the lipid bilayer surrounding brain cells that receive signals from chemical transmitters. As Dr. Murphy points out, the fat we eat affects the ability of neurotransmitters like serotonin and dopamine to dock on membrane receptor sites and initiate their respective physiological functions.

**Cholesterol/Triglycerides:** Omega 3’s lower LDL cholesterol, and also have a favorable effect on reducing triglycerides (Hu, F.B. JAMA 2002;288(20):2569-2578).

**Brain development/regeneration of nerve cells:** Consumption of omega 3’s by eating fish once a week significantly reduces risk of Alzheimer’s (Barberger-Gateau, P. et al. British Medical Journal 2002;325 Oct 26:932-933). This article also noted a specific role of the omega 3 fatty acids in the regeneration of nerve cells.

**Osteoarthritis:** Supplementation with omega 3’s reduced the release of proteoglycan metabolites from articular cartilage and abolished aggrecanase and collagenase activity (Curtis, C.L. Arthritis and Rheumatism 2002;46(6):1544-1553). Also, as Dr. Murphy points out, supplementation of omega 3’s can be important in both quiescent and active osteoarthritis.

**Back Pain/Disc Herniation:** PGE2 is the principal mediator related to the induction of sciatica and low back pain. It provokes ectopic firing of nerve roots, indicating that it may play a part in the chemical irritation of nerve roots. Dorsal root ganglion neurons can be sensitized by PGE2. “PGE2 possesses the capability of causing pain, or enhancing pain-inducing substances such as bradykinin...It is suggested that COX-2 may be involved in the pathogenesis of lumbar disc herniation through upregulation of PGE2 production” (Miyamoto, H et al.. Spine 2002;Nov 15;27(22):2477-2483).

**Contraindications:** *Fish oil can thin the blood and should not be combined with blood thinning drugs. Thinning the blood is normally considered to be advantageous because of the effect on reduced risk for blood clots/heart attack. Although blood thinning can hypothetically raise risk for hemorrhage/stroke, fish intake has been associated with reduced risk for stroke ( Hiroyasu I, et al. Intake of fish and omega 3 fatty acids and risk of stroke in women. JAMA 2001;285(3) Jan 17:304-312.)*

**Drs. Dan Murphy and Harold McCoy recommend that COMPLETE OMEGA-3 ESSENTIALS be taken with COMPLETE OMEGA-3 CO-FACTORS FOR BEST RESULTS.**

**COMPLETE OMEGA-3 CO-FACTORS™:**

Co-factors provide for the proper absorption and utilization of Omega 3 fatty acids. Co-factors also support the heart, mitochondria, normal cholesterol, and homocysteine levels, in addition to being an excellent anti-oxidant/anti-aging formula

Each Two tablets contain: Methylcobalamin (B-12) 400 mcg, Reduced L-Glutathione 50mg, Vitamin C 500mg, Riboflavin 50mg, B-6 50mg, Folic Acid 800 mcg, Co-Enzyme Q-10 5mg, Alpha Lipoic Acid 5mg, Policosanol Extract 90% 5mg, Selenium Methionine 100 mcg, Magnesium Chelate 150mg (elemental)

60 tablets, Product #1517

*Recommendation:* 2 tablets daily or as directed

**COMPLETE HI-POTENCY OMEGA LIQUID™ (Adult Formula)** (nutritional support for chronic pain, inflammation, depression, osteoarthritis, and a healthy immune system. Also supports the cardiovascular system, normal brain and nervous system development/function, kidneys, and the body's ability to regulate normal cholesterol and triglyceride

Each Teaspoonful contains: DHA 800mg, EPA 1600mg, Flax Seed Oil 100 mg, Black Currant Seed Oil 50mg, Vitamin E (D-Alpha Tocopherol-natural) 50 i.u., Natural fruit flavor.

Omega 3 oil is molecular distilled, pharmaceutical grade, from cold-water wild fish and has been independently tested for mercury, PCB's, Dioxins, Furans and rancidity and complies with the CRN Monograph. These are the absolute freshest oils available.

**Refrigerate after opening** to preserve this unique freshness.

*Recommendation:* Adults one teaspoonful 3 x day or as directed

8-ounce brown glass bottle

**COMPLETE MATERNAL/INFANT OMEGA-3 ESSENTIALS LIQUID™** Support for a healthy immune system. Also supports the cardiovascular system, normal brain and nervous system development/function and kidney support. **This is the specific product that should be taken by all infants/children and pregnant and lactating mothers. It is higher in DHA which helps to support the development of the child's brain and nervous system.**

Each Teaspoonful contains: DHA 650mg, EPA 250mg, ALA 100mg (Alpha-Linolenic Acid), 50i.u. Vitamin E (Natural D-Alpha Tocopherol), GLA (Gamma Linolenic Acid) 50mg. Flavored with natural fruit flavor.

Omega 3 oil is molecular distilled, pharmaceutical grade, from cold-water wild fish and has been independently tested for mercury, PCBs, Dioxins, Furans and rancidity and complies with the CRN Monograph. These are the absolute freshest oils available and should be refrigerated after opening to preserve this unique freshness.

*Recommendation:* Adults: one teaspoonful 3 x day or as directed

Infants: 1/8 teaspoonful per day or as directed.

Children: 1 teaspoonful daily or as directed

8-ounce brown glass bottle

COMPLIMENTS OF:



FOR YOUR NEAREST DISTRIBUTOR  
PLEASE CALL TOLL FREE 1-800-443-3333

[WWW.NUTRIWEST.COM](http://WWW.NUTRIWEST.COM)

FAX: 307-358-9208

ANY QUESTIONS? E MAIL [Marcia@nutri-west.net](mailto:Marcia@nutri-west.net)

The above statements have not been evaluated by the FDA. The nutritional information, suggestions, and research provided are not intended to diagnose, treat, cure, or prevent disease and should not be used as a substitute for sound medical advice. Please see your health care professional in all matters pertaining to your physical health.