

# OmegaPure DHA™

Essential Fatty Acids from Coldwater Fish



Available in 60 softgels

## Discussion

DHA (docosahexaenoic acid), a conditionally essential omega-3 fatty acid, is highly concentrated in mitochondria, synaptosomes of the brain, the cerebral cortex, and the photoreceptors of the retina. It plays an important role in the fluidity and permeability of cell membranes and cellular communication, and is vital to the optimal function of the brain, eyes, heart, and immune system.<sup>[1,2]</sup> Conversion of the essential omega-3 alpha-linolenic acid (ALA) to EPA (eicosapentaenoic acid) and then to DHA can be inefficient, making EPA and DHA conditionally essential. It is estimated that only a small percentage of ALA ultimately gets converted to DHA.<sup>[3]</sup>

**Neurological and Brain Health** DHA is the most abundant structural fatty acid in the brain and nervous system and plays a vital role in prenatal and postnatal brain development. The fetus and developing infant are dependent on exogenous sources due to a limited ability to convert ALA into long-chain omega-3 EPA and DHA.<sup>[4]</sup> Preformed DHA is transferred directly from mother to fetus and is passed to infants via mother's milk. Pregnant and nursing women are advised to consume at least 2.6 g of omega-3 fatty acids and 100-300 mg of DHA per day in order to meet the needs of fetus or infant.<sup>[4]</sup> Research suggests that DHA-supplemented and breast-fed infants score significantly better on mental and psychomotor development tests, and that essential fatty acids and DHA may support normal activity levels and learning capacity during preschool years.<sup>[4,5]</sup> A study of 229 infants in three randomized controlled trials suggested that a dose of 0.36% of total fatty acids as DHA (a concentration representative of human breast milk) contributed to favorable problem-solving performance, a parameter found to correlate with later IQ and vocabulary development.<sup>[6]</sup>

It is purported that aging is associated with decreased brain levels of DHA,<sup>[5]</sup> and supplementation may be beneficial throughout the lifespan. Researchers propose that DHA may play a role in maintaining myelin and neuronal health, supporting a normal healthy response to inflammation (especially in the brain), and exerting pleiotropic effects to support healthy metabolism and aging.<sup>[7]</sup> A study of 280

## Clinical Applications

- » Supports Early Brain Development\*
- » Supports Brain Structure and Function Throughout the Lifespan\*
- » Supports a Natural, Healthy Response to Inflammation\*
- » Supports Eye Health\*
- » Processed and Purified According to International Fish Oil Standards (IFOS)\*
- » Third-Party Tested for Freshness, Purity, and Safety\*

*OmegaPure DHA™, a coldwater fish-derived oil containing highly concentrated docosahexaenoic acid (DHA), is a molecularly distilled, antioxidant-stabilized, third-party tested formula. DHA is an omega-3 fatty acid that physicians often recommend to support healthy pregnancy and lactation, and to support brain development and function in the fetus and infant. Throughout the life span, DHA may support healthy brain structure and function, immune and eye health, and the natural response to inflammation.\**

healthy middle-aged community volunteers (ages 35-54) investigated the association between omega-3 fatty acids (ALA, EPA, and DHA) in serum phospholipids and five major dimensions of cognitive functioning. Higher DHA levels were significantly associated with better performance in the areas of nonverbal reasoning, mental flexibility, working memory, and vocabulary. Neither ALA nor EPA was related to any of the five dimensions tested.<sup>[8]</sup> DHA may also play a role in memory formation throughout a person's lifetime.<sup>[9]</sup> Current research has focused on the DHA-derived neuroprotectin D1 (NPD1) and its role in the health and maintenance of brain cells. NPD1—an important mediator produced from DHA through the action of 15-lipoxygenase-1—appears to have a positive effect on neurotrophic cell signaling, normal cell-life cycles, and the healthy response to inflammation. DHA and NPD1 appear to play a regulatory role in beta-amyloid neurobiology as well.<sup>[10]</sup>

**Eye Health and Immune Health** DHA is recognized for developing and maintaining eye health and function during early life. Optimal retinal and visual cortex maturation were understood to depend upon dietary DHA during development, and visual acuity and mental development were “seemingly improved by extra DHA.”<sup>[5]</sup> A double-masked randomized trial of 244 healthy formula-fed infants suggests that visual acuity is significantly improved with DHA supplementation at 0.32% of total fatty acids.<sup>[11]</sup> DHA is concentrated in the photoreceptors of the retina, is required for the functional integrity of retinal pigment epithelium (RPE) cells, and may play an ongoing role in eye health and function throughout life.<sup>[1,9]</sup> Studies on human RPE cells suggest that NPD1 orchestrates cell-protective mechanisms (including inhibition of caspase-3 activation COX-2 expression), and thus promotes a healthy response to oxidative stress and inflammation.<sup>[9,12]</sup> Research suggests that DHA's effects play a role in immune system balance and health as well.<sup>[13,14]</sup>

OmegaPure DHA is a highly concentrated, pure form of DHA designed to support brain, eye, and overall health and well-being.\*

**OmegaPure DHA™ Supplement Facts**

Serving Size: 2 Softgels

	Amount Per Serving	%Daily Value†
<b>Calories</b>	20	
Calories from Fat	20	
<b>Total Fat</b>	2 g	3%
Vitamin E (as mixed tocopherols)	1.2 IU	4%
Fish Oil Concentrate	2 g	**
DHA (docosahexaenoic acid)	1.16 g	**
EPA (eicosapentaenoic acid)	120 mg	**

† Percent Daily Values are based on a 2,000 calorie diet.  
 \*\* Daily Value not established.

**Other Ingredients:** Gelatin, glycerin, and purified water.  
**Contains:** Fish (tuna, sardine, anchovy).

**DIRECTIONS:** Take one to two softgels with water daily, or as directed by your healthcare practitioner.

**DOES NOT CONTAIN:** Wheat, gluten, corn, yeast, soy protein, dairy products, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or preservatives.

**CAUTIONS:** Consult your healthcare practitioner before use, especially if you are taking a blood thinner. Keep out of reach of children. Avoid if allergic to any ingredient.

**STORAGE:** Keep tightly closed in a cool, dry place.

**References**

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Additional references available upon request

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

\*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.