BIOGENESIS® NUTRACEUTICALS, INC

Omega 3·6·9 Emulsion

Serving Size 2 tsp. (10 ml)
Servings Per Container 47

	Amount Per Serving
Calories	45
Calories from Fat	30
Total fat	3 g
Saturated fat	1 g
Cholesterol	10 mg
Carbohydrate	4 g
Sugars	0 g
Sugar Alcohols	2 g
Vitamin A	340 IU
Vitamin E	4 IU
Sodium	0 mg
Omega-3 polyunsaturated fat	
EPA (eicosapentaenoic acid)	360 mg
DHA (docosahexaenoic acid)	360 mg
Other ω-3 fatty acids	280 mg
Omega-6 polyunsaturated fat	
Linoleic acid (LA)	100 mg
Other ω-6 fatty acids	100 mg
Omega-9 monounsaturated fat	
Oleic acid	690 mg
Other ω-9 fatty acids	140 mg

OTHER INGREDIENTS: Purified fish oil (salmon oil and/or cod liver oil), water, xylitol, glycerine, gum arabic, natural flavors, citric acid, xanthan gum, guar gum, sorbic acid, turmeric (for color), vitamin E (as D-alpha tocopherol), ascorbyl palmitate (to ensure freshness).
Contains: Fish (from salmon and/or cod liver oil). Contains NO MSG.

SUGGESTED USE: SHAKE WELL before use. As a dietary supplement, take 2 teaspoons one time per day or as directed by your healthcare professional. REFRIGERATE AFTER OPENING FOR QUALITY and keep tightly capped.

*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.

OMEGA 3·6·9 EMULSION

HIGH QUALITY FISH OIL IN A UNIQUE, GREAT-TASTING, EMULSIFIED FORMULA

- **Pharmaceutical-grade fish oil**
- **Emulsified for increased absorption and bioavailability***
- **Well tolerated***
- **Creamy, lemon-flavored formula**

OMEGA 3·6·9 EMULSION provides a pleasant-tasting fish oil supplement designed to promote the digestion and absorption of the essential fatty acids. The health benefits of the omega-3 fatty acids are well documented. Unfortunately, many patients fail to consume adequate levels from dietary sources. Fish oil capsules and liquids are common forms of omega-3 supplementation, however, palatability and unpleasant eructation (i.e. “fish burps”) often lead to issues with patient compliance. Omega 3·6·9 Emulsion provides pharmaceutical-grade fish oil in a unique, creamy texture for a delicious, well-tolerated form of essential fatty acid supplement.*

EMULSIFICATION is the process of dispersing one liquid in a second immiscible liquid, such as oil in water. Emulsification of dietary fat is a process which occurs naturally in the intestinal tract as part of the digestion and absorption process. Pre-emulsification of essential fats can drastically increase their absorption and bioavailability. This is especially true of the long chain unsaturated fats which tend to be more resistant to pancreatic lipase. Numerous studies have indicated improved patient tolerance and statistically significant increases in the absorption of pre-emulsified eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) when compared to capsular products. A clinical observation of 24 subjects revealed reduced absorption of EPA by 33.6% and DHA by 44.3% when using a non-emulsified supplement when compared with an emulsified product.*

EICOSAPENTAENOIC ACID (EPA 20:5 ω-3) and DOCOSAHEXAENOIC ACID (DHA 22:6 ω-3) are long chain highly unsaturated omega-3 fatty acids. The omega-3 fatty acid alpha-linolenic acid (ALA 18:3 ω-3) is considered essential because the human body cannot synthesize it. In theory, we should be able to efficiently elongate

TEL: 425.487.0788 / 866.272.0500 FAX: 425.485.3518 www.bio-genesis.com

OMEGA 3·6·9 EMULSION

and desaturate ALA into EPA and DHA. However, for a variety of reasons including an over consumption of omega-6 fatty acids and inadequate dietary intake of necessary cofactors, this enzymatic process is not efficient in most Americans. For this reason, EPA and DHA can be considered conditionally essential fatty acids. Research has shown that the intake of the longer chain omega-3 fatty acids (EPA/DHA) may improve joint, cardiovascular, cell membrane, and eye health while reducing the risks of neurological disorders and cancers. One of the most well-understood roles of these omega-3 fats is the production of anti-inflammatory eicosanoids. These biological signaling molecules include prostaglandins, thromboxanes, and leukotrienes and produce various localized effects on the inflammatory response. Omega-6 fatty acids, which are more commonly consumed in the American diet, favor the synthesis of pro-inflammatory eicosanoids. Meanwhile, omega-3 fatty acids are more slowly converted to less inflammatory molecules. Their role in modulating the inflammatory response is why intake of longer chain omega-3 fatty acids has been linked to improved cardiovascular health and blood flow. Eicosapentaenoic acid and docosahexaenoic acid are also necessary for neurological health and help support the development and function of the brain and nervous system.*

LINOLEIC ACID (LA 18:2 ω-6) is an essential omega-6 fatty acid and is abundant in many vegetable oils. Linoleic acid is a component of cell membranes and is also used in the biosynthesis of both gamma-linolenic acid (GLA 18:3 ω-6) and arachidonic acid (AA 20:4 ω-6). Gamma-linolenic acid has been historically used to treat imbalanced immune and endocrine activity as well as inflammatory skin conditions. Arachidonic acid is essential for the synthesis of prostaglandins which modulate the body's inflammatory response to injury. Adequate levels of arachidonic acid are essential for proper tissue recovery and wound healing.*

OLEIC ACID (18:2 ω-9) is an omega-9 monounsaturated fatty acid. Dietary sources include olive oil, nuts, and avocados. Oleic acid, like all unsaturated fatty acids, helps promote cellular health by supporting cell membrane fluidity. Intake of oleic acid may also support healthy blood lipid profiles by reducing LDL while possibly raising HDL. Substituting dietary saturated fat with monounsaturated fat may also slow the platelet aggregatory response, indicating that oleic acid may support healthy circulation and reduce the risk of clotting.*

REFERENCES:

1. Allman-Farinelli MA, et al. A diet rich in high-oleic-acid sunflower oil favorably alters low-density lipoprotein cholesterol, triglycerides, and factor VII coagulant activity. *J Am Diet Assoc*. 2005 Jul;105(7):1071-9.

2. Garaiova I, et al. A randomized cross-over trial in healthy adults indicating improved absorption of omega-3 fatty acids by pre-emulsification. *Nutrition Journal*. 2007 Jan 25;6:4.

3. Horrobin DF. Essential fatty acid metabolism and its modification in atopic eczema. *Am J Clin Nutr*. 2000 Jan;71(1 Suppl):367S-72S.

4. Pereira LM, et al. Effect of oleic and linoleic acids on the inflammatory phase of wound healing in rats. *Cell Biochem Funct*. 2008 Mar-Apr;26(2):197-204.

5. Raatz S, et al. Enhanced absorption of n-3 fatty acids from emulsified compared with encapsulated fish oil. *J Am Diet Assoc*. 2009 Jun;109(6):1076-81.

6. Smith RD, et al. Long-term monounsaturated fatty acid diets reduce platelet aggregation in healthy young subjects. *Br J Nutr*. 2003 Sep;90(3):597-606.

051510