# Cardiac Fish Oil: Elite Highest Dose EPA



Distributed By:
Optimal Heart Center & Body Lab
9965 North 95th Street, Suite 110
Scottsdale, AZ 88258
(480) 941-0800

# **Clinical Applications**

Dr. AMFM: Supports Cardiovascular Health\*
Supports Healthy Endothelial Fun

Supports Healthy Endothelial Function\*

THE EXCLUSIVE FORMULA • Supports a Healthy Response to Normal Oxidative Stress\*

Promotes the Maintenance of Healthy Blood Lipid Levels\*

Cardiac Fish Oil: Elite Highest Dose EPA features patented MaxSimil® EPA monoglyceride fish oil. This readily absorbed formula provides the highly concentrated omega-3 fatty acid eicosapentaenoic acid (EPA) to support cardiovascular health by maintaining healthy blood lipid levels already within the normal range.\*

All Optimal Heart Center & Body Lab Formulas Meet or Exceed cGMP Quality Standards

# **Discussion**

Cardiac Fish Oil: Elite Highest Dose EPA features MaxSimil® EPA, a form of the highly absorbable, patented MaxSimil monoglyceride fish oil with 910 mg of concentrated eicosapentaenoic acid (EPA) per softgel. EPA is a long-chain omega-3 fatty acid that plays a role in supporting healthy cardiac and circulatory systems.\*

#### **Absorption**

Studies conducted by the manufacturer of MaxSimil have shown promising results that suggest better absorption compared to other fish oils. In a single-dose, double-blind, crossover pharmacokinetic study performed in healthy, fasting male and female subjects ages 19 to 60 (N = 20) each participant was administered a single dose of six softgels containing a combined dose of ~2000 mg EPA and ~1500 mg docosahexaenoic acid (DHA) from either ethyl ester (EE) fish oil or MaxSimil. Compared to the EE fish oil subjects. MaxSimil EPA and DHA subjects experienced peak EPA and DHA concentrations that were more than three times higher, reached maximum concentration faster, and maintained plasma levels longer.[1-3] However, additional peerreviewed research related to bioavailability is warranted.\*

#### Cardiovascular Health

Omega-3s have been widely researched for their promotion of cardiovascular health, including the maintenance of healthy lipid levels and the support of normal resistance to oxidative stress. [4] Findings from a 2017 meta-analysis and a 2018 systematic review indicated that both DHA and EPA play markedly beneficial roles in supporting cardiovascular health, especially in certain populations.\*[5,6]

In another systematic review and meta-analysis, the authors investigated the effects of purified EPA or DHA when administered as monotherapy for serum lipids for a minimum of four weeks. In pooled studies, results showed that EPA monotherapy decreased serum triglyceride (TG), decreased low-density lipoprotein (LDL), and increased high-density lipoprotein (HDL) compared to placebo.\*[7]

The proposed mechanisms for the beneficial effects of EPA on cardiovascular health include a reduced de novo lipid synthesis (the conversion of carbohydrate to fatty acid), increased beta-oxidation of fatty acids, and reduced delivery of non-esterified fatty acids to the liver.[8] It has been proposed that these same mechanisms play a beneficial role in helping to modulate very lowdensity lipoprotein (VLDL) levels. [9] Additionally, EPA has favorable cardiovascular effects which can include roles in endothelial function, oxidative stress management, foam cell formation, cytokine balance, platelet aggregation, and the metabolism of triglycerides and cholesterol.\*[10]

In the most recent comprehensive review to date, researchers looked at data for orally administered omega-3s with the aim of evaluating the status and the controversies relating to the support of cardiovascular health. The authors concluded that highly purified EPA at higher doses has been shown to play beneficial roles in lowering TG levels and supporting cardiovascular health, particularly in certain populations. However, additional trials with long-term follow-up are needed to clarify guidelines regarding the recommendation of fish oil therapies in the clinical setting.\*[8]

> \*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.



# **Supplement Facts**

Serving Size: 1 Softgel
Servings Per Container: 60

\* Daily Value not established.

Servings Per Container: 60		
	Amount Per Serving	%Daily Value
Calories	15	
Total Fat	1.3 g	2% <sup>†</sup>
MaxSimil® EPA Fish Oil Concentrate EPA (eicosapentaenoic acid)	1.3 g 910 mg	**
† Percent Daily Values are based on a 2,000 calorie diet.		

Other Ingredients: Softgel (fish gelatin, vegetable glycerin, and purified water), GRAS enteric coating (ethylcellulose, sodium alginate, purified water, medium-chain triglycerides, oleic acid, vegetable stearic acid, and ammonium hydroxide), and natural mixed tocopherols.

**Contains:** Fish (anchovy and/or sardine and/or mackerel [sources of fish oil], basa and/or tilapia [sources of fish gelatin]).

Manufactured using MaxSimil® fish oil. MaxSimil® is a registered trademark of Ingenutra Inc. Protected under US patents 8,119,690 and 8,198,324; Canadian patents 2672513 and 2677670.

### **Directions**

Take one softgel daily, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

## **Does Not Contain**

Wheat, gluten, corn, yeast, soy protein, dairy products, shellfish, peanuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

## References

- 1. Unpublished, internal data. Ingenutra.
- 2. Fortin S, inventor; Centre de Recherche sur les Biotechnologies Marines, assignee. Compositions comprising polyunsaturated fatty acid monoglycerides or derivatives thereof and uses thereof. US patent 8,198,324. June 12, 2012.
- 3. Brunet S, Chamoun R, Fortin S, et al. MaxSimil®: A novel, patented natural platform for enhanced absorption of omega-3s. Single dose, double-blind, 2-way crossover pilot pharmacokinetic study on healthy subjects under normal diet. Sherbrooke (Québec), Canada: Ingenutra; 2018. [Unpublished]
- 4. Ghasemi Fard S, Wang F, Sinclair AJ, et al. Crit Rev Food Sci Nutr. 2019;59(11):1684-1727. doi:10.1080/10408398.2018.1425978.
- 5. Alexander DD, Miller PE, Van Elswyk ME, et al. Mayo Clin Proc. 2017 Jan;92(1):15-29. doi:10.1016/j.mayocp.2016.10.018.
- 6. Abdelhamid AS, Brown TJ, Brainard JS, et al. Cochrane Database Syst Rev. 2018 Nov 30;11:CD003177. doi:10.1002/14651858.CD003177.pub4.
- 7. Wei MY, Jacobson TA. Curr Atheroscler Rep. 2011 Dec;13(6):474-83. doi:10.1007/s11883-011-0210-3.
- 8. Tummala R, Ghosh RK, Jain V, et al. Am J Med. 2019 Oct;132(10):1153-1159. doi:10.1016/j.amjmed.2019.04.027.
- 9. Mozaffarian D, Wu JH. J Nutr. 2012 Mar;142(3):614S-625S. doi:10.3945/jn.111.149633.
- 10. Borow KM, Nelson JR, Mason RP. Atherosclerosis. 2015 Sep;242(1):357-66. doi:10.1016/j.atherosclerosis.2015.07.035.

\*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.

Distributed By:
Optimal Heart Center & Body Lab
9965 North 95th Street, Suite 110
Scottsdale, AZ 85258
(480) 941-0800