GENESTRA BRANDS®

Super EFA Forte Capsules + D

Concentrated triglyceride fish oil plus vitamin D in a convenient softgel format

- Double-potency formula offering 475 mg of EPA and 325 mg of DHA per softgel
- Includes 1,000 IU of vitamin D per teaspoon
- Helps support cognitive, cardiovascular, bone and immune health‡

Super EFA Forte Capsules + D offer a high-potency fish oil formula providing EPA and DHA in a bioavailable triglyceride form. Each exceptionally pure softgel offers 800 mg of EPA and DHA to support neurological, cardiovascular and joint health. DHA is one of the most important omega-3 fatty acids in the brain, where it helps regulate membrane fluidity, the formation of synapses, and cytokine production. Clinical research has demonstrated that DHA can support cognitive health, including episodic memory and learning in older adults. DHA is also important for the proper development of the brain and retina in young children. EPA and DHA have been found to support cardiovascular health by promoting healthy lipid metabolism, heart rates, and platelet and endothelial function. By regulating immune cell activity and the production of eicosanoids, such as prostaglandins and leukotrienes, these omega-3 fatty acids provide additional support for joint comfort and function. Clinical research has demonstrated that triglyceride fish oils have greater bioavailability than ethyl esters, with one study reporting a significantly higher increase in the omega-3 index after six months of supplementation than an identical dose of ethyl esters. Vitamin D is also included for its well-recognized effects in maintaining immune function and bone health.‡

SUPPLEMENT FACTS
Serving Size 1 Softgel
Servings per Container 60

AMOUNT PER SERVING		% DV
Calories	15	
Total Fat	1.5 g	2% ^
Cholesterol	<5 mg	1%
Vitamin D (as cholecalciferol)	25 mcg (1,000 IU)	125%
Fish Oil (from Anchovy, Sardine and Mackerel)	1,430 mg	*
Yielding		
EPA (Eicosapentaenoic Acid)	475 mg	*
DHA (Docosahexaenoic Acid)	325 mg	*
Total Omega-3	830 mg	*

* Daily Value (DV) not established
^ Percent Daily Values (DV) are based on a 2,000 calorie diet

Other ingredients: Capsule (bovine gelatin, glycerin, purified water), sweet orange oil, mixed tocopherols concentrate
Contains: Fish (Anchovy, Sardine and Mackerel)

Recommended Dose
Take one softgel daily or as recommended by your health professional.

Size
60 Softgels

Product Code
10394

Non GMO | Gluten Free | Dairy Free

Seroyal.com | 1.888.737.6925

‡ 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.

Super EFA Forte Capsules + D

Scientific Rationale:

Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are omega-3 polyunsaturated fatty acids.[1] As they cannot be made by the body, they must be supplied from the diet, and are primarily found in fatty fish.[1] A shorter omega-3 fatty acid, alpha-linolenic acid, is more prevalent in the diet (from green leafy vegetables, flaxseed, perilla and walnuts), and can be metabolized to produce EPA and DHA; however, this pathway is not efficient.[1,2] As it may be difficult to consume adequate levels of EPA and DHA through the diet alone, supplementation with a high-quality fish oil can help increase EPA and DHA intakes without the risk of environmental contaminants associated with certain fish species.[2,3‡]

Modern Western diets typically provide higher levels of omega-6 fatty acids than omega-3 fatty acids.[1] In turn, these diets have resulted in a higher proportion of omega-6 fatty acids in the phospholipids of many cells.[4] Specifically, cells involved in certain regulatory responses have been found to contain high levels of arachidonic acid (AA, an omega-6 fatty acid).[5] Importantly, this fatty acid distribution can be impacted by dietary intakes, as EPA and DHA can partially replace omega-6 fatty acids in the membranes of cells throughout the body.[1‡] In addition, as these fatty acid types differ metabolically and functionally, it is important to have a balanced dietary intake.[1‡]

While AA can be metabolized to produce eicosanoids, such as prostaglandin E2 and leukotriene B4, EPA and DHA have been found to decrease the production of these metabolites.[4‡] Furthermore, emerging evidence suggests that EPA and DHA can be metabolized to produce lipid mediators known as resolvins, as well as related compounds including protectins.[4‡] These novel compounds have been demonstrated in preclinical research to be immunomodulatory.[4‡] Research suggests that EPA and DHA may support a wide variety of health functions, including cardiovascular and joint health, due to these effects.[4‡]

DHA is particularly abundant in the cerebral cortex, retina, testis and sperm.[1] Considered one of the most important omega-3 fatty acids in the brain, preclinical research has demonstrated that DHA may support cognitive health by mediating membrane fluidity, the formation of synapses and cytokine production.[5‡] It may provide significant support to the aging brain, which is susceptible to oxidative changes; in turn, these changes may negatively impact learning and memory.[6] In one randomized, double-blind, placebo-controlled study, daily supplementation with 900 mg of DHA for 24 weeks significantly promoted cognitive function, including episodic memory and learning in older adults.[7‡] DHA is also critical for the proper development of the brain and retina in young children.[2‡]

Fish oils have also demonstrated beneficial effects on the cardiovascular and skeletal systems.[3‡] Preclinical research suggests that they support healthy lipid metabolism, heart rates, and platelet and endothelial function, while mediating eicosanoid production to further support arterial health.[3‡] In a randomized, placebo-controlled trial, supplementation with 300 mg of EPA and 200 mg of DHA for 14 days significantly promoted endothelial function (as measured by endothelium-dependent brachial artery flow-mediated vasodilation) and decreased resting heart rate.[8‡] Similarly, 180 mg of EPA and 120 mg of DHA taken daily for six months significantly decreased high-sensitivity C-reactive protein (hs-CRP), while promoting a healthy lipid profile.[9‡] Additionally, EPA and DHA help reduce the release of eicosanoids in joints, which can impact joint comfort and function.[4‡] These fish oils may also regulate T-cell reactivity, reactive oxygen species production and cytokine release from immune cells to further support healthy immunological responses and promote joint health.[4‡]

The form of supplemented EPA and DHA can have a significant impact on bioavailability.[10‡] Research has found that the triglyceride form is highly bioavailable, with clinical studies reporting greater absorption of EPA and DHA in this form when compared to ethyl esters.[11-13‡] Similarly, supplementation with EPA and DHA in the triglyceride form for six months was reported to significantly increase the omega-3 index to a greater extent when compared to the same dose provided in ethyl ester form.[14‡] This measurement of omega-3 status represents the percentage of EPA and DHA in red blood cell membranes, and indicates an individual's long-term intake of omega-3 fatty acids.

The vitamin D receptor is found on most immune cells, demonstrating an important interaction between vitamin D and the immune system.[15‡] Low vitamin D status is associated with decreased upper respiratory immune function, while vitamin D supplementation can positively affect immune cells.[16-18‡] Vitamin D helps mediate T and B cell proliferation, phagocytic activity of macrophages, and healthy cytokine balance to support immune function.[19‡] In one clinical trial, 1,000 IU of vitamin D taken daily for three months significantly regulated IL-2, IL-4, IL-6, and IFN-Y production.[20‡] Vitamin D is also well-recognized for its beneficial effects on bone health.‡ It helps absorb calcium to support bone mineralization, while promoting bone cell activity.[21‡] Research suggests that 400 IU of vitamin D per day supports bone growth in young children, while 600 IU daily helps maximize bone health in adolescents and adults.[22,23‡] Furthermore, 800 IU of vitamin D daily helps maximize bone health in adults over 70, providing particular support to hip and non-vertebral bones.[23,24‡]

REFERENCES
1. Simopoulos, AP. Nutrients. 2016; 8(3): 128.
2. Swanson, D, Block, R, Mousa, SA. Adv Nutr. 2012; 3(1): 1-7.
3. Kris-Etherton, PM, Harris, WS, Appel, LJ, American Heart Association.. Circulation. 2002; 106(21): 2747–57.
4. Miles, EA, Calder, PC. Br J Nutr. 2012; 107 Suppl 2: S171-84.
5. Calder, PC. Nutrients. 2010; 2(3): 355-374.
6. Dyall, SC. Front Aging Neurosci. 2015; 7: 52.
7. Yurko-Mauro, K, et al. Alzheimers Dement. 2010; 6(6): 456-64.
8. Shah, AP, et al. J Cardiovasc Pharmacol Ther. 2007; 12(3): 213-9.
9. Ebrahimi, M, et al. Acta Cardiol. 2009; 64(3): 321-7.
10. von Schacky, C. Nutrients. 2014; 6(2): 799-814.
11. Beckermann, B, Beneke, M, Seitz, I. [Abstract]. Arzneimittelforschung. 1990; 40(6): 700-4.
12. Lawson, LD, Hughes, BG. Biochem Biophys Res Commun. 1988; 152(1): 328-35.
13. Dyerberg, J, Madsen, P, Møller, JM, Aardestrup, I, Schmidt, EB. Prostaglandins Leukot Essent Fatty Acids. 2010; 83(3): 137-41.
14. Neubronner, J, Schuchardt, JP, Kressel, G, Merkel, M, von Schacky, C, Hahn, A. Eur J Clin Nutr. 2011; 65(2): 247-54.
15. Aranow, C. J Investig Med. 2011; 59(6): 881–886.
16. Bryson KJ, Nash AA, and Norval M. Epidemiology & Infection. 2014; 2(9): 1789-1801.
17. Sabetta J, DePetrillo P, Cipriani R, Smardin J, Burns A, and Landry M. PLoS One. 2010; 5(6): e11088.
18. Rolf L, Muris AH, Hupperts R, Damoiseaux J. Ann. N.Y. Acad. Sci. 2014; 1317: 84–91.
19. Mora, JR, Iwata, M, von Andrian, UH. Nat Rev Immunol. 2008; 8(9): 685-698.
20. Di Filippo P, Scaparrotta A, Rapino D, Cingolani A, Attanasi M, et al. Int Arch Allergy Immunol. 2015; 166: 91-96.
21. Wranicz, J, Szostak-Węgierek, D. Rocz Panstw Zakl Hig. 2014; 65(3): 179-184.
22. Wagner, CL, Greer, FR. Pediatrics. 2008; 122(5): 1142-1152.
23. Holick, MF, Binkley, NC, Bischoff-Ferrari, HA, Gordon, CM, Hanley, DA, et al. J Clin Endocrinol Metab. 2011; 96(7):1911-1930.
24. Bischoff-Ferrari, HA, Willett, WC, Wong, JB, Giovannucci, E, Dietrich, T, Dawson-Hughes, B. JAMA. 2005; 293(18): 2257-2264.

Seroyal.com | 1.888.737.6925

GENESTRA BRANDS®

‡ 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.