Cardiovascular Support

Ultra Omega - 3
500 EPA/250 DHA
PRODUCT CODE P8760

Description
The omega-3 fatty acids abundant in fish oils are known for the many benefits associated with their ability to support a healthy, balanced inflammatory response. Through this mechanism, omega-3 fatty acids assist in the maintenance of cardiovascular health, immune system function, and joint comfort. Omega-3 fatty acids also have been shown to promote the proper functioning of the central nervous system, thereby playing a critical role in mood and cognition.

Features & Benefits
• Supports balanced inflammatory response8, 12-14, 16-18
• Supports healthy cardiovascular system5-6, 16-19; helps maintain normal heart rhythm3; helps maintain already healthy blood lipids4
• Supports healthy immune function8, 12-14, 16-18
• Supports bone and joint health20, 26-28
• Supports proper functioning of the central nervous system21, 22, 24, thereby playing a critical role in mood and cognition23-25
• May help maintain a healthy body weight26-30

Suggested Usage
As a dietary supplement, take one softgel one to four times daily with meals or as directed by your health care practitioner.

Allergen Checklist
Contains no sugar, salt, starch, yeast, wheat, gluten, corn, milk, egg, shellfish or preservatives.

Cautions/ Interactions
Omega-3 fatty acids may interact with aspirin31, warfarin32, and statin drugs33. Omega-3 fatty acids may affect the metabolism of certain medications, including cyclosporine34 and topical corticosteroids.35

Technical Summary
• EPA is a precursor of prostaglandins and leukotrienes involved in maintaining a balanced inflammatory response*
• Omega-3 fatty acids are important in cell membrane chemistry, including structure and cell signaling
• DHA in particular is associated with the proper functioning of the central nervous system

Consumption of omega-3 fatty acids may reduce the risk of coronary heart disease. (FDA approved health claim.) FDA evaluated the data and determined that, although there is scientific evidence supporting the claim, the evidence is not conclusive.

Mechanisms of Action
The ratio of omega-6 to omega-3 fatty acids in the diet of early humans has been widely estimated to be 1:1, but the ratio in the typical Western diet is now almost 10:1 due to increased use of vegetable oils rich in omega-6 fatty acids as well as reduced fish consumption. The focus of much recent work has been on the implications of fatty acid ratios on cell membrane integrity, structure and function with implications for cell signaling. The phospholipids of the brain's gray matter contain a high proportion of DHA and this suggests that fatty acid is important to central nervous system functioning.21-25, 36

The downstream effect of balance in consumption of omega-3 to omega-6 fatty acids and of excessive consumption of omega-6 fatty acids is a shift in the synthesis of eicosanoids that are derived from 20-carbon PUFAs. Eicosanoids are potent chemical messengers that play critical roles in inflammatory responses,8, 12-14, 16-18 Their quantity and ratios influence leukotriene production. Leukotrienes are naturally produced eicosanoid lipid mediators and are produced in the body from arachidonic acid by the enzyme 5-lipoxygenase. Their synthesis usually accompanies the production of histamine and leukotrienes that can act to sustain inflammatory reactions. This factor is one reason that omega fatty acid balance is important to inflammatory balance. Inflammatory balance, in turn, is linked to immune functioning.8, 12-14, 16-18 With the excess of omega-6 to omega-3 fatty acids typical of Western diets, the physiologic balance is shifted towards the eicosanoid arachidonic acid and poorer control of inflammatory responses.

*These statements have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure or prevent any disease.
Clinical Applications

Considerable interest has been showered on the roles of omega-3 fatty acids in visual and neurological development in the infant, hence on ingestion of adequate nutrition by the mother during pregnancy and lactation. Of late, this attention has been turned to the possible usefulness of omega-3 fatty acids in mood and cognition, especially in the elderly (keeping in consideration the importance of baseline ratios of omega-6 to omega-3 to any findings). By extension, it is to be expected that the modulation of healthy inflammatory and immune responses might translate into usefulness in other areas also more commonly of concern in middle and later life, such as the support of bone and joint health. Of particular interest is application of omega-3 fatty acids to cardiovascular health. The FDA has allowed the claim that consumption of omega-3 fatty acids may reduce the risk of coronary heart disease. In addition, consumption of omega-3 fatty acids helps to maintain normal heart rhythm and blood lipids already within a healthy range.

Complementary Products

Coenzyme Q10 (P3182) is offered as a separate product – CoQ 10 benefits cardiac function through energy production. Acetyl-L-carnitine (P0076) also often is recommended both for support of mitochondrial function and the maintenance of membrane structures.

Supplement Facts

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount Per Serving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size 1 Softgel</td>
<td></td>
</tr>
<tr>
<td>Calories</td>
<td>10</td>
</tr>
<tr>
<td>Calories from Fat</td>
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</tr>
<tr>
<td>Total Fat</td>
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</tr>
<tr>
<td>Saturated Fat</td>
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<tr>
<td>Trans Fat</td>
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<tr>
<td>Polyunsaturated Fat</td>
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<tr>
<td>Monounsaturated Fat</td>
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<tr>
<td>Cholesterol</td>
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<tr>
<td>Vitamin E (as natural d-alpha Tocopherol)</td>
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<tr>
<td>Natural Fish Oil Concentrate</td>
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<tr>
<td>Omega-3 Fatty Acids</td>
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<tr>
<td>Eicosapentaenoic Acid (EPA)</td>
<td>500 mg</td>
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<tr>
<td>Docosahexaenoic Acid (DHA)</td>
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Other ingredients: Softgel Capsule (gelatin, glycerin, water and enteric coating).

Contains fish (sardines, anchovies, mackerel) and soy derivatives. Contains no sugar, salt, starch, yeast, wheat, gluten, corn, milk, egg, shellfish or preservatives.

REFERENCES


References continued on page 3


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