Phosphatidylserine

Ingredients
Doctor’s Best Phosphatidyl Serine provides the essential brain nutrient phosphatidylserine in a matrix of other phospholipids and cofactors. Phosphatidylserine and other phospholipids are structural components of brain neurons that can enhance cell-to-cell communication.* Studies have shown the ability of supplemental phosphatidylserine to support healthy cognitive function.* It may enhance healthy memory and thinking ability by facilitating neuronal communication.* It may also support the body during stressful times.* Best Phosphatidyl Serine contains phosphatidylserine and other essential nutritional cofactors in a liquid softgel, providing added stability to these key phospholipid molecules.

Benefits
Provides Building Blocks for Healthy Neurons*
Phospholipid molecules are key components of cellular membranes. The incorporation of these molecules into membranes facilitates healthy cell function, toxin removal and cellular signaling. One of the most important of these compounds for neural cells is phosphatidylserine (PS), which makes up about 10% of the composition of neuronal cell membranes. Phosphatidylserine can be made by the body and is also taken into the body as part of the diet. Some researchers believe that supplemental PS may be highly indicated as we age, since our natural diets may contain suboptimal amounts of phosphatidylserine.† It is thought to be especially important in maintaining the general structure and function of the neuron. Supplementation phosphatidylserine may have beneficial effects on memory function by allowing neurons in the neuron networks to effectively communicate with one another.

Studies suggest that phosphatidylserine enhances signal transmission between neural cells. An in vitro study measured the effects of phosphatidylserine on hippocampal (brain) slices taken from male albino rats.† In this study, the researchers found that when the brain slices were bathed in PS, they had increased efficiency of nerve transmission and an enhancement of long-term potentiation (which is related to information storage in the brain) compared to control.

Supplement Facts

100 mg/60 Softgels

<table>
<thead>
<tr>
<th>Amount per serving</th>
<th>% Daily Value</th>
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</thead>
<tbody>
<tr>
<td>SerinAid® Phosphatidylserine</td>
<td>500 mg</td>
</tr>
<tr>
<td>providing:</td>
<td></td>
</tr>
<tr>
<td>Phosphatidylserine (PS)</td>
<td>100 mg</td>
</tr>
<tr>
<td>Phosphatidylcholine</td>
<td>45 mg</td>
</tr>
<tr>
<td>Medium Chain Triglycerides (MCT)</td>
<td>150 mg</td>
</tr>
</tbody>
</table>

† Daily Value not established.

Other Ingredients: Softgel capsule (gelatin, glycerin, purified water), soybean oil. Contains Soy
Suggested Adult Use: Take 1 softgel 2 or 3 times daily with meals, or as recommended by a nutritionally-informed physician.
Gluten Free
Store in a cool dry place.

100 mg/120 Veggie Caps

<table>
<thead>
<tr>
<th>Amount per serving</th>
<th>% Daily Value</th>
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</thead>
<tbody>
<tr>
<td>SerinAid® Phosphatidylserine</td>
<td>200 mg</td>
</tr>
<tr>
<td>providing:</td>
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</tr>
<tr>
<td>Phosphatidylserine (PS)</td>
<td>100 mg min.</td>
</tr>
<tr>
<td>Phosphatidylcholine</td>
<td>24 mg max.</td>
</tr>
<tr>
<td>Phosphatidylethanolamine</td>
<td>20 mg max.</td>
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</tbody>
</table>

† Daily Value not established.

Other Ingredients: Cellulose, modified cellulose (vegetarian capsule), silicon dioxide, magnesium stearate (vegetable source). Contains Soy
Suggested Adult Use: Take 1 capsule 2 or 3 times daily with meals, or as recommended by a nutritionally-informed physician.
Non-GMO and Gluten Free
Store in a cool dry place.

* 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.
A novel mechanism.6 A controlled study was done on rats where they were memory function. The results were similar with PS from bovine cortex. Another group of researchers looked at the effectiveness of soy compared to bovine phosphatidylserine in aged rats forced to perform a memory task known as the Morris water-maze test, a standardized lab measure of spatial memory function.5 The rats were fed soy derived phosphatidylserine at 60 mg/kg for 60 days. This significantly enhanced performance of the task by aged rats compared to control rats, indicating beneficial effects on memory function. The results were similar with PS from bovine cortex. Scientists have suggested that phosphatidylserine protects brain tissue by a novel mechanism.6 A controlled study was done on rats where they were given phosphatidylserine injections at three different points in time. They were then injected with placebo or LPS (lipopolysaccharide), a chemical agent known to have a negative effect on nerve transmission in a specific area of rat brains (the hippocampus). Three hours later, rats were assessed for their ability to retain long-term potentiation (the long-term efficiency of nerve-to-nerve transmission, which is thought to be involved in storing information in the brain). At the end of the experiment, the hippocampal area of the rat brains was looked at. Pretreatment with PS helped the animals overcome the effects of LPS and support the health of brain tissue. The rats treated with phosphatidylserine were also found to have higher levels of the protective anti-inflammatory cytokine IL-10 than control animals. They found that giving IL-10 also overcame the effects of LPS in a manner similar to phosphatidylserine. Thus the group of researchers concluded that one of the mechanisms of brain protection by phosphatidylserine may be its ability to increase IL-10 production.

Human Clinical Studies
A number of human clinical studies have also been conducted using phosphatidylserine to support healthy brain activity. In a review of the effects of phosphatidylserine supplementation, the authors suggest that phosphatidylserine may be effective at enhancing cognitive function and supporting mild memory problems associated with aging based on the results seen in both animal and human studies.7 One of the first double-blind controlled studies on PS was published in 1986, and consisted of 35 people with mild memory problems associated with aging taking either 100mg of animal derived PS three times per day or placebo. The subjects were analyzed with tests designed to assess problems found in activities of daily life. They were tested after one week and six weeks of taking the supplement, and then three weeks after discontinuing. Although statistical significance was reached only in one test (The Peri Scale, a measure of mood, cognitive function, behavior and activities of daily living), the subjects taking the PS showed positive trends towards improvement on all three tests compared to the controls.8

A double-blind, placebo-controlled study looked at 149 people supplementing with phosphatidylserine over 6 months. The subjects were given 200mg of PS or placebo orally for 3 months. Nine standard tests for brain function were used to analyze the subjects before and after the treatment, and then again at 6, 12, 18 and 24 months (after discontinuing the treatment). They found that in the group most impacted by memory problems associated with aging there was a benefit of PS on a number of the cogn-
ter exercise stress in 9 healthy men. Subjects took 800 mg of phosphatidylserine or placebo orally for 10 days in a double-blind, randomized cross-over study.¹⁹

In another investigation, eleven fit male subjects with at least 4 years of weight training experience were given 800mg of phosphatidylserine or placebo for two weeks in a cross-over study.¹⁶ During this time they were involved in eight intensive weight lifting sessions over the two weeks. Although resting cortisol levels did not differ throughout the training in the phosphatidylserine versus the placebo groups, the post-exercise level of cortisol was significantly lower in the PS group. ACTH was not affected by phosphatidylserine supplementation in this study. The PS significantly enhanced the perception of well-being and lowered ratings of muscle soreness in response to the severe over-training they underwent during the study. The severity of the training was confirmed by increases in creatine kinase (a measure of damage to the muscles) in both groups.

Safety

A group of researchers reported on the excellent safety profile of soy derived PS.¹⁷ In this study, they found no significant differences between treatment and control groups when they looked at a number of blood safety parameters, vital signs, and subjective complaints. Thus they concluded that PS is a safe nutritional supplement for the elderly at least up to 600mg per day in divided doses, and further studies in humans are needed to clarify the exact role phosphatidylserine supplementation may play on cognitive function.

Research conducted over the last two decades supports the ability of phosphatidylserine supplementation to provide building blocks for healthy neurons, enhance cognitive function, provide support for mild memory problems associated with aging, and support for both mental and physical derived stress.²⁰

Scientific References


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