

Phosphatidyl Serine SF



Clinical Applications

- Supports Neuronal Cell Integrity*
- Maintains Membrane Fluidity*
- Supports Neuronal Cell Health*
- Supports Neurotransmitter Metabolism*

*Phosphatidyl Serine SF contains Sharp-PS® GREEN brand of phosphatidylserine, a soy-free source of this important phospholipid derived from sunflower lecithin. This natural phospholipid helps maintain function of brain and nerve cell membranes and activates neurotransmitters involved in learning and memory functions.**

All Absolute Health Formulas Meet or Exceed cGMP Quality Standards

Discussion

The brain's complex metabolism requires many different components to perform optimally and defend against damaging influences that contribute to cellular aging. Numerous changes may take place in nerve and brain cells that can result in a decline in memory retention, concentration, and acuity. Factors associated with these changes can include impaired cell membrane function, decreased flow of nutrients to the brain, hormonal imbalances caused by chronic stress, and alterations in neurotransmitters (chemical messengers). Phosphatidylserine (PS) is an endogenous phospholipid. Although it is less abundant in the body than other phospholipids (i.e., phosphatidylcholine and phosphatidylethanolamine), it still comprises 2–10% of the body's total phospholipids, with critical functions in several biological areas, such as apoptosis (programmed cell death), blood clotting, and cell-to-cell communication.¹ The PS molecule consists of a glycerol-phosphate backbone, the alpha-amino acid serine, and two fatty acids. As with other phospholipids, PS is a critical component in the structure of membranes, particularly neurons.²

In the body, phospholipids form a variety of structures owing to their amphipathic nature, i.e., having both a hydrophobic ("water-fearing") non-polar tail and hydrophilic ("water-loving") polar head. They can move within the fluid mosaic of cell membranes, which supports cellular communication, selective passage of macromolecules, and other important cellular functions. Phosphatidylserine is the most abundant negatively charged phospholipid in eukaryotic cell membranes.³ As the major acidic phospholipid in the brain, PS can traverse the blood-brain barrier after oral administration.⁴ In animal studies, it has been shown to influence several neurochemical systems, neuronal membranes, cell metabolism, and several neurotransmitters, including serotonin and dopamine.⁵⁻⁷ Phosphatidylserine may help support and maintain the balance of metabolic pathways that affect cognitive function as follows:

Neuronal Cell Integrity Phosphatidylserine is the most abundant phospholipid in the human brain and is made by the body in small amounts. This important phospholipid supports neuronal cell integrity by providing the building blocks needed for cell membrane structure and function. Cell membranes not only act as a barrier between the inside and outside of a cell, but also play an important role in cellular communication and normal cellular responses.

Maintaining Membrane Fluidity Phosphatidylserine also helps maintain fluidity of cell membranes. This action is important as it allows nutrients such as glucose, the brain's main energy source, to be efficiently transported within and across brain and nerve cell membranes, which helps ensure proper nourishment.

Neuronal Cell Health Protection Studies have shown that phosphatidylserine may help balance release of adrenal hormones, such as cortisol that help us adapt to stress. Cortisol has been linked with free radical-induced damage to nerve cells, which over time, can result in cognitive decline with age. Phosphatidylserine's ability to promote cortisol balance may help protect neuronal cell health and produce a slowing down or improvement in mild memory problems.

Supports Neurotransmitter Metabolism Phosphatidylserine has been documented to increase the availability of choline for synthesis of acetylcholine, an important neurotransmitter involved in memory and learning. Phosphatidylserine may also help enhance cognitive function by maintaining cholinergic activity in the brain.

Several clinical trials have shown that PS supplementation supports cognitive function. In one randomized, controlled clinical trial, 36 children, aged 4 to 14 years, who were experiencing attention-related issues were given 200 mg/d of PS or placebo for two months. PS supplementation resulted in significant improvements in attention, impulsive movement, and short-term auditory memory as compared with placebo. PS was well-tolerated and showed no adverse effects.

Phosphatidylserine has further been shown to support healthy endocrine and adrenal responses to mental stress. In a double-blind study, PS (400 mg, 600 mg, or 800 mg/d) was administered to healthy women and men 20 to 45 years old.⁹ In the groups receiving 400 mg/d of PS only, researchers observed a pronounced blunting of both serum ACTH and cortisol, and salivary cortisol responses to the Trier Social Stress Test (TSST). There was also a positive effect on emotional responses to the TSST at 400 mg/d. While the placebo group showed the expected increase in distress after the test, the group treated with 400 mg PS showed a decrease. The effect was not seen with larger doses. These results suggest that PS may dampen hypothalamic-pituitary-adrenal (HPA) axis stress responses.

Phosphatidylserine also supports cognitive function in aging individuals. In a clinical trial, 70 elderly subjects with cognition complaints were randomly allocated to four groups: 17 patients received only social support, 18 patients received cognitive training twice a week, 17 patients received cognitive training combined with pyritinol 2 x 600 mg/d, and 18 patients received cognitive training combined with phosphatidylserine (200 mg BID). Researchers concluded that PS supplementation combined with cognitive training led to transient improvement of cognitive and memory function, as well as improved electrophysiological brain function.¹⁰

This product is intended as a nutritional adjunct for individuals who wish to support healthy brain and nerve cell function and may be especially beneficial for persons at higher risk for developing cognitive impairment. This sunflower-derived phosphatidylserine is provided in vegetarian capsules and is a good option for those who wish to avoid soy.

*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.



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Phosphatidyl Serine SF



Supplement Facts

Serving Size 1 Capsule
Servings Per Container 60

Amount Per Capsule

Phosphatidylserine (from sunflower Lecithin)‡	100 mg*
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*Daily Value not established.

Other ingredients: Cellulose, vegetarian capsule (hydroxypropyl methylcellulose, water), silicified microcrystalline cellulose, silicon dioxide, L-leucine, maltodextrin, mixed tocopherols, and ascorbyl palmitate.



This product was made in a GMP and ISO 9001:2008 registered facility.

Directions

Take 1 to 2 capsules daily with food, or as directed by your healthcare provider.

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

Does Not Contain

Milk/casein, eggs, fish, shellfish, tree nuts, peanuts, wheat/gluten, corn, yeast, and soybeans. Contains no artificial colors, flavors, or preservatives.



References

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