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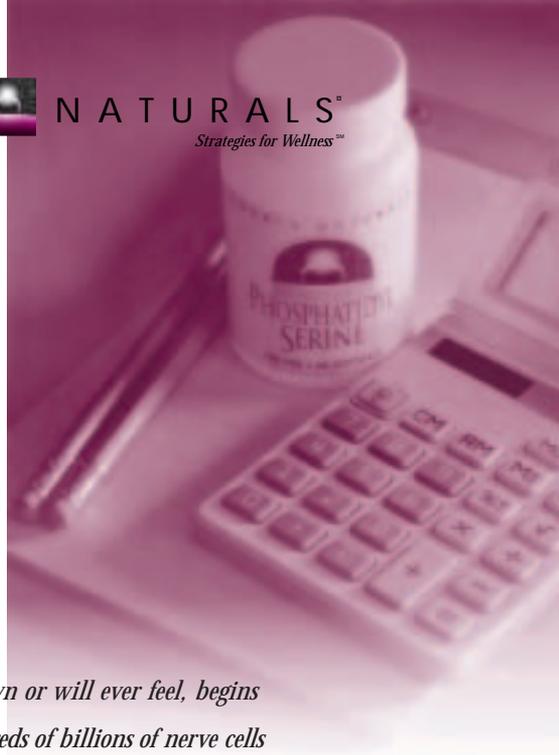
Strategies for Wellness<sup>™</sup>

# PS PHOSPHATIDYL SERINE

*All we have ever known or will ever feel, begins and ends with the hundreds of billions of nerve cells that form our brain. Without them, there can be no experience; for us, nothing would exist. Our mind and personality, the sense of who we are, emanate from this immensely intricate system of nerves.*

*The brain's remarkable ability to perceive and perform, remember and learn, is severely challenged by today's social and physical environment. These environmental factors accelerate the decline in nerve cell activity that normally occurs with age.*

*Recent clinical research is revealing how previously unrecognized nutrients can strengthen the body's natural defenses against age-related cognitive decline. Source Naturals is proud to present the latest breakthrough in nutritional support for the brain: PHOSPHATIDYL SERINE.*



Phosphatidyl Serine (PS) is a phospholipid which forms an essential part of every human cell, but it's particularly concentrated in the membranes of nerve cells. Since the electronic messages that communicate and regulate every aspect of our lives travel along nerve cell membranes, the structural integrity of these membranes is imperative to our health.

The nerve cell membrane is the site where molecules of sodium and potassium exchange electrons, causing the electrical impulse to be generated. This bio-electric current then travels along the membrane to trigger the release of neurotransmitters. These are the chemical messengers that cross synapses (gaps between nerve cells) to relay information to neighboring nerve cells. This sets other electrical currents in motion—along thousands of other nerve cells. This happens billions of times each second, and is how the brain and nerves coordinate and communicate with the rest of the body.

PS has a very important function in the nerve cell membrane. As a key bio-structural molecule, PS provides vital support for the membrane proteins that enable nerve cells to communicate and grow.

### Regulating the Flow

Unlike other cells in the body, nerve cells do not reproduce. Instead, they repair and rebuild themselves, using proteins called Nerve Growth Factor (NGF). Experiments verify that PS enhances the synthesis and reception of NGF, which tend to drop off radically with age.<sup>1</sup>

PS supplements enhance the cerebral cortex's output of acetylcholine, the neurotransmitter associated with our ability to think, reason, and concentrate. PS also stimulates the synthesis and release of dopamine, related to heightened states of attention.<sup>2</sup>

The brain's response to stress also appears to be related to PS. When healthy young men were subjected to exercise-induced stress, those taking PS had a lowered stress response. This

was measured by blood levels of ACTH, the pituitary hormone that triggers the adrenals to secrete the stress hormone cortisol.<sup>3</sup>

### Well-Tested

Subjects taking PS showed increased levels of brain energy metabolism and scored higher on cognitive tests.<sup>4</sup> Behavioral factors were also measured in elderly subjects; PS positively affected their mood states.<sup>5</sup>

Over 23 clinical trials have investigated the effect of PS supplements on more than 1200 human subjects, ages 40-93. Consistent and statistically significant results suggest that PS supports brain functions that tend to diminish with age.

### Wellness Redefined

Nutritional research continually reveals new potentials for wellness. Source Naturals is committed to helping people achieve a fulfilling life, and a fully functioning nervous system is central to this aim. Source Naturals PHOSPHATIDYL SERINE can help support your body's natural regenerative processes, keeping your brain healthy and vital for a long, long time.

Experience the difference with Source Naturals PHOSPHATIDYL SERINE.

### References:

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2. Caffarra, P., and V. Santamaria, 1987. "The effects of phosphatidylserine in subjects with mild cognitive decline." *Clin. Trials J.* 24: 109-114.
3. Heiss, W.D., et al., 1993. "Activation PET as an instrument to determine therapeutic efficacy in Alzheimer's Disease." *Annals N.Y. Acad. Sci.* 695: 327-31.
4. Monteleone, P., et al., 1990. "Effects of phosphatidylserine on the neuroendocrine response to physical stress in humans." *Neuroendocrinol.* 52: 243-48.
5. Nunzi, M.G., et al., 1990. "Therapeutic properties of phosphatidylserine in the aging brain." In, *Phospholipids: Biochemical, Pharmaceutical and Analytical Considerations* (ed. I. Hanin and G. Pepeu). New York: Plenum Press.

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The above information has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.