

Phosphatidyl Serine

*Does it seem like your brain is a little foggy lately?
Perhaps you could use a little PS - Phosphatidyl Serine, that is!*

by Margy Squires

Ask yourself about the following common, everyday tasks. Can you remember a person's name after you've just been introduced? Grocery items when you go to the store? Do you forget the rest of the phone number before you get through dialing? Are you always misplacing keys or other objects you use daily?

These are a sampling of questions from cognitive tests designed by renowned researcher on memory and aging, Thomas Crook, Ph.D. If you failed the quiz, you could be a candidate for one of his studies on dementia! Or could it be you just have brain or fibro-fog? Sounds almost the same, doesn't it? Either way, phosphatidyl serine (phos·pha·ti·dyl·ser·ine) or PS for short is amazing when it comes to matters of the mind (and the rest of your aging body!)

Even more amazing is that few people know about PS. This nutrient has been studied for more than 40 years, including successful human trials, for improving both memory and brain function. In fact, Crook and his colleagues conducted the first U.S. double-blind study on PS in the U.S. in 1991. His conclusion: PS was "the best thing he had ever seen for restoring memory loss" even when compared to 100 drugs.

Well documented and thorough, Crook's findings were published in a peer reviewed journal. This is significant because many medical professionals only recognize studies as noteworthy if they are double-blind and peer review published. What should be as significant are the more than 3000 peer reviewed research papers that phospholipid researcher and scientist Parris Kidd, Ph.D., analyzed.

Dr. Kidd determined that PS "is the single best nutrient for safely conserving and restoring crucial higher functions of the brain" in terms of cognition. Kidd goes on to say that "the remarkable benefits of PS and its safety

in use are now established beyond doubt". Wait, there's more!

You should also know that the FDA has approved two cognitive health claims for PS. In May 2003, per the FDA "qualified health claim" status, PS labels are allowed to state that PS may "reduce the risk of dementia and cognitive dysfunction in the elderly".

What is this amazing nutrient? Phosphatidyl serine is a naturally occurring phospholipid that your body makes. PS is comprised of both water and lipid (fat) soluble material that protects the inner and outer membrane of the 100 trillion cells that keep you alive. Although found in every cell, the highest concentration of PS is in the billion cells of the brain. It's believed that only 15% of brain cell death or disability is genetic; the rest is due to free radical damage that affects the cell membrane. As a major building block of the cell membrane, PS "minds" the white matter. In Crook's 12 week study, results were seen in as little as three weeks. But there's even more good news.

Not only does PS keep cells more viable, PS has been shown to "regenerate" cells and activity previously impaired. Even when the study and the supplement were discontinued, the benefits from PS continued. That's proof positive that PS works short and long term.

Think of your brain as one big electrical grid in a city. Each city block might be one circuit of that grid. Imagine a power outage that affects the circuit. The extent of the blackout is equal to the number of circuits that lose "power". Any circuit without power affects communication to a circuit connected to it as well as to other grids and other cities.



Your brain circuitry is similar to the city grid in how it communicates – both within the brain and to distant nerves in your fingers and toes. PS has the ability to "turn the power back on".

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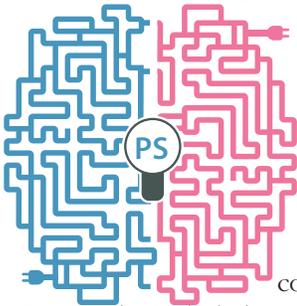
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PS increases activity in such a way that it is observable on Positron Emission Tomography (PET) scans which measure energy (power) in the brain!

Remember the questions asked in the first paragraph? As mentioned, your cognitive ability can be determined by testing. How you think, reason, concentrate and translate thoughts into words. How fast you can learn and remember. When certain parts of the brain are impaired, it is difficult to recall even what you already know and your ability to learn new things is challenged. The statistical facts are that dementia affects 40% of those 50-59 years of age, 50% in the 60-69 range, and so forth. The term for this phenomenon is age related cognitive decline (ARCD).

The earlier you start losing your memory, the higher your risk for developing Alzheimer's, an advanced form of dementia. Loss of the familiar, like remembering people and faces, is one of the first "recalls" a person susceptible to Alzheimer's loses. In both mild to moderate dementia and Alzheimer's research, PS improved recall and it did so safely. In some studies, participants continued their regular medications. One study included a subgroup of participants where the average age was 64 years. In follow-up testing on PS, these participants reflected brain function levels similar to that of 52 year olds.



Many people with fibromyalgia describe feeling "like an old person" mentally as well as physically. Pain further adds to the problem. Perhaps the process by which short term memory gets converted to long term is interrupted by distracting pain signals. Maybe disturbances in brain neurochemicals affect how these messages are deciphered in the first place. PS can strengthen cellular messaging, neurochemistry and other cellular functions both directly and indirectly. Could it help fibro-fog as well? The involvement of PS in the receptor binding sites for neurotransmitters like dopamine, acetylcholine and serotonin suggest it can. Plus, PS helps the mitochondria as we shall see.

Brain studies in many neurodegenerative disorders such as multiple sclerosis (MS), Huntington's, Parkinson's, stroke and amyotrophic lateral sclerosis suggest that mitochondrial insufficiency may be a contributing cause to cell death. Another study by Kidd offers an answer with what he calls "brain energetics" – supplementing with nutrients that support the mitochondria such as CoQ10, alpha lipoic acid and NADH. Add PS for support of the mitochondria and nerve growth factor receptors to improve cognition, along with omega-3 fatty acids.

THE MANY BENEFITS OF PS

- ◆ Improves brain function, cognition & memory
- ◆ Enhances learning & retention of information
- ◆ Improves concentration & ability to focus
- ◆ Supports mood & well-being
- ◆ Reduces stress hormone levels
- ◆ Reduces age-related mental decline
- ◆ Improves post-exercise recovery
- ◆ Promotes collagen & skin health

Another remarkable feature of PS is that it helps protect myelin, the sheath that covers nerve cells, which facilitates nerve impulses. Demyelinated myelin is also a factor in some neurodegenerative disorders like MS, and once damaged, is irreparable.

If all of this "amazing" news has convinced you to give PS a try, you'll have to supplement to reach the study doses (300 mg per day). Most foods, including lecithin, are low in PS. As you age, your ability to synthesize PS declines as well. As a supplement compounded from soya lecithin, PS has an impeccable safety record.

How much should you take? Although lower doses were beneficial, it took months longer to see results. A suggested dose is 100 mg taken three times a day with food. As with most supplements, start at a lower dose and increase slowly. After one to two months at 300 mg, PS can usually be reduced to a maintenance dose of 100 mg a day. Naturopathic doctor Michael Murray thinks supplementing the diet with other nutrients that help the brain make PS – essential fatty acids with flaxseed oil, 800 mcg folic acid, 800 mcg B12 and 1000 mg vitamin C daily – is also a "very good idea". Now, where are my car keys?



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