

GPC: Optimizing Mental Focus, Memory, and Brain Repair

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What if there were one nutrient that could help you achieve better memory, focus, and concentration, and could also help maintain healthy brain function during aging? Glycerophosphocholine (GPC) is a powerful, natural compound that does all that and more. Over 20 clinical trials have been performed on GPC, and over 4,000 patients have been studied. The results show that GPC is one of the most clinically effective brain nutrients available today.

The Nutritional Benefits of GPC

GPC supplementation nutritionally supports:

- focus, concentration, and recall
- the speed and sharpness of mental processing
- the revitalization of declining mental function
- healthy mood levels, including positive attitude and sociability
- the recovery of brain function following brain injury or circulatory deprivation
- skeletal muscle integrity, including growth and regeneration
- kidney and liver functions, including renewal and detoxification
- fertility, both for sperm performance and for fertilization

Optimizing Focus and Concentration

In two double-blinded trials, GPC has been found to restore memory and concentration in young people whose memory had been impaired by the sedative drug scopolamine.¹ Older adults showed improved reaction time when taking GPC, a sign that their brain is more alert and focused.² GPC also improves brain wave patterns associated with healthier brain aging.³

Providing Powerful Nutritional Support for Alzheimer's and Other Forms of Dementia

A number of clinical trials have shown that using GPC for nutritional support may help the brain recover some of its functions that are lost during aging. GPC may even benefit those with dementia and Alzheimer's disease.⁴ While GPC is not a cure for Alzheimer's, a recently published double-blind trial documented GPC's benefits against mild to moderate Alzheimer's dementia. Twelve hundred milligrams of GPC per day orally was compared against placebo in 261 patients for 6 months. GPC proved significantly superior than placebo on all the measures used. The investigators noted that the GPC

patients improved not just on cognition but in behavior and activities of daily living, "possibly improving patients' and caregivers' quality of life."⁵

Supporting Healing After Stroke and Brain Injury

GPC is unquestionably the most important nutrient for anyone who has suffered a stroke or a brain injury. Five trials have been published in which GPC was successfully used to enhance stroke recovery in a total of nearly 3,000 patients. In each of these trials, GPC produced clinically meaningful results, providing healing benefits for stroke that are unique in the nutrient research literature. All of these studies used the same protocol: GPC injected intramuscularly at a dose of 1,000 mg per day for the first month, then taken orally at a dose of 1,200 mg per day for the following 5 months. In the first phase of treatment (intramuscular), neurological functions recovered by 20-30 percent. In the subsequent, oral phase of treatment, clinical improvement continued. The investigators concluded that GPC significantly helped more than 95 percent of the patients, and that it offered unique benefits against acute cerebrovascular disease.⁶

Protecting the Brain During Surgery

One of the dangers of major surgery is the anesthesia that accompanies it. Such anesthesia often leads to brain damage which can appear as memory loss and other forms of mental impairment. GPC has been researched in surgical patients, and has been found to have powerfully protective effects on the brain. In a double-blinded study of 20 patients undergoing open heart surgery, GPC significantly reduced the amount of memory loss and mental impairment that occurred in the days and months following the procedure.⁷

How to Take GPC

Depending on which health condition you are supporting, start by taking 300-1200 mg in the morning. After 1-2 days, the dose can be increased if more mental focus or neuronal repair nutritional support is needed. Taking GPC within 6 hours of bedtime may make it harder to fall asleep at a normal hour. When taking GPC for the nutritional support of a diagnosed health condition, do so with the supervision of your health care practitioner.

Using GPC for Nutritional Support

General Health Maintenance	300-600 mg
Optimizing Mental Focus.....	600-1200 mg
Supporting the Brain Before and After Total Anesthesia.....	1200 mg
Recovery from Stroke and Brain Injury.....	800-1200 mg
Alzheimer's Disease and Dementia	1200 mg

GPC Up Close
**GPC works on the cellular level
in our body as a:**

- Brain nourisher and revitalizer
- Brain osmotic protector
- Cell membrane building block
- Choline and acetylcholine reservoir
- Fertility support nutrient

Commonly Asked Questions About GPC

When will I start feeling the benefits of GPC?

Most people begin to feel an increase in energy within 20 minutes, especially when taking GPC in its pure, liquid form. When taking the encapsulated or powdered version, allow 30-60 minutes for results to be felt.

What is the best form for oral delivery of GPC?

While GPC in powder form does work well for healthy patients, GPC in the pure liquid form appears to be assimilated more quickly by the body than powders or capsules. Because GPC is hygroscopic (water-attracting), it must be attached to a binder such as dicalcium phosphate in order to be made into a powder that can in turn be encapsulated. Chronically ill patients or those with compromised digestive function often do not do well with binders, and may have difficulty digesting and assimilating GPC in this form. For such chronically ill patients, GPC in pure liquid form is closer to the ideal.

Where does GPC come from?

GPC is naturally made from soy. Pure GPC liquid and powder is therefore suitable for vegetarians. GPC does not contain soy protein, so GPC does not cause allergic reactions such as can occur with soy protein and other soy products. Also note GPC is a unique, water-soluble phospholipid and that soy lecithin does not offer the same therapeutic effects of GPC.

Is GPC a natural component of our metabolism?

Yes. GPC belongs to an elite nutrient class known as "orthomolecular," which means that GPC is completely natural to the body's metabolism. This probably accounts for the great degree of safety associated with GPC.

How does GPC compare to other forms of choline such as lecithin and CDP choline?

GPC is superior to other choline forms including phosphatidyl choline for improving mental function according to a wide body of research.⁸ GPC has proven more effective in humans than CDP choline (cytidine diphosphocholine or citicoline) according to three controlled human clinical trials.⁹

Some research shows that GPC has been used by injection. Is this a more powerful way to use GPC?

Yes. This requires a prescription from your doctor, and can be filled

by a compounding pharmacist. For those with serious brain damage, stroke, or severe memory problems, this route of administration is recommended if at all possible for the first four weeks of GPC therapy.

Does GPC raise human growth hormone levels?

A few human studies show that GPC when given by injection may have this effect. No studies on orally administered GPC and its effects on growth hormone have yet been published.

Are there any side effects from taking GPC?

Gastrointestinal upset can occur, but is rare. If GPC is taken in the 6 hours before bedtime, the mind can become so energized that it may be difficult to fall asleep.

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