

Alpha-GPC

Alpha-glycerolphosphorylcholine | L-alpha-glycerophosphocholin | glycerophosphocholine | L-alpha-glyceryl-phosphorylcholine | Choline Alphoscerate

What is Alpha-GPC?

Alpha-GPC is a choline-containing phospholipid, which the body breaks down into its basic chemical constituents: glycerol 1-phosphate and choline.

Neuronal cell membranes are made up of phospholipids. Phospholipids are generally composed of a phosphate group, two alcohols, and one or two fatty acids (13, 14).

Alpha-GPC increases levels of acetylcholine (ACh) in the body (16).

ACh is involved in muscle contraction, blood vessel health, and heart rate, among many other functions (4).

ACh assists in regulating heart rate and blood pressure, which may improve blood flow and slow heart rate (6).

ACh facilitates learning, memory, attention, arousal, & skeletal muscle contraction.

Further, an increase in ACh abates exercise-induced reductions in acetylcholine levels, thus boosting endurance, power output, and, when dosed at 600 milligrams (mg): growth hormone secretion (7).

Regarding different choline sources, Alpha-GPC is the preferred cholinergic supplement for increasing choline levels in the blood and brain (14).

Alpha-GPC Vs CDP-choline:

CDP-choline contains 18% choline, while alpha-GPC contains 40% choline (7).

In one study, 1 gram of alpha-GPC outperformed the same dose of CDP-choline for improving behavior & memory in patients with vascular dementia (7).

Alpha-GPC Benefits:

Research from hundreds of studies have shown that Alpha GPC:

- Improves memory and learning ability (8).
- Restores the bioavailability of acetylcholine (9).
- Restores and boosts nerve growth factor receptors in the brain (10).
- Increases growth hormone in all age groups (11).

- Boosts cognitive performance and memory in Alzheimer's patients (12).

Some research shows that taking alpha-GPC helps to improve thinking skills in Alzheimer patients after 3 to 6 months of supplementation (3).

Further research suggests that alpha GPC may improve cognitive function, slow the progression of cognitive decline, and improve symptoms related to Alzheimer's disease (5).

The Serial Sevens Test (SST) requires the participant to count down from 100 by 7s and is frequently used in mental status evaluation for dementia as a measure of concentration and overall cognition (1).

Alpha-GPC has been shown to improve SST scores in humans 30 minutes after ingestion, with both 200 mg, and 400 mg doses (2).

Alpha-GPC acts synergistically with acetylcholinesterase inhibitors, such as huperzine A, which is extracted from the firmoss *huperzia serrata* (7).

Being a source of choline that crosses the blood-brain barrier (BBB), Alpha-GPC increases acetylcholine (ACh) production in the central nervous system.

Alpha-GPC acts in synergy with caffeine, and co-supplementation improves mental and physical performance (2).

Alpha-GPC dosage and rationale:

For improving power output: 300-600 mg taken 30-60 minutes before exercise.

For attenuating symptoms of cognitive decline: 400mg 3x/day (1200mg/day).

Following years of testing and rigorous research regarding the optimal dosage of Alpha-GPC for improving mental and physical performance, we opted for 700 mg of Alpha-GPC in our SUPER U formula. We wanted to include enough to not only achieve enhanced mental clarity, focus, and attention, but to also provide an ergogenic effect. All doses tested under 600 mg proved to provide the former, but not the latter. 1200 mg of Alpha-GPC has been shown to be safe and cause no negative side effects when taken daily for six months. However, during our testing process, doses above 700 mg conferred an over-stimulatory effect when taken in conjunction with other stimulants in SUPER U at the dosages provided, such as dicaffeine malate or L-Citrulline malate. We didn't want to remove the other great stimulatory ingredients or lower their dosages and render them less effective for their purpose of helping to forge the perfect physical and mental feel. Hence, we opted for 700 mg of Alpha-GPC in SUPER U to provide the perfect balance of mental clarity and energy, while maintaining a sense of relaxation and happiness.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, cure, or prevent any disease.

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