

GPC Liquid

A form of choline for brain, nerve health and muscle function



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Choline is highest in foods such as whole eggs, organ meats and caviar. GPC Liquid is a water soluble molecule that has been proven to be more effective than Phosphatidylcholine(PC) from diet or supplementation.^{9,22-25}

With a recommended adequate intake (AI) of 425mg/550mg per day (for females/ males, respectively).⁴⁷ Many people fail to obtain adequate amounts of choline,⁴⁰ and endogenous synthesis (from phosphatidylethanolamine) is limited. Aging, genetic polymorphisms and estrogen deficiency may increase the demand for choline even above the AI.⁴³⁻⁴⁶

BENEFITS

Improved Body Composition

- Fat transport in and out of cells
- PC is required for the synthesis and secretion of VLDL particles. Triglycerides exit the liver inside VLDL particles, which explains why choline deficiency increases the risk of developing fatty liver.⁴³⁻⁴⁶ PC can be obtained from food sources or supplements; however, the PC used in phospholipids and lipoproteins is not derived directly from ingested or pre-formed PC. It is synthesized from various choline precursors, including GPC, so taking in PC is not necessarily the most effective way to increase the body's pool of PC.

Brain Function, Focus, Memory, Speed

- Improves memory, mental focus and reaction time in elderly and young individuals^{1-3,15,51,52}
- Boosts acetylcholine (ACh) production and release from neurons and likely other cells^{22,23}
- May compensate for ACh decline due to aging, estrogen deficiency (menopause, possibly also with oral contraceptive use)^{1,54,41}
- Increases production of dopamine (drive and motivation neurotransmitter),³⁰ serotonin³⁰ and GABA¹⁸ (calm and inhibitory neurotransmitters)
- Improves mitochondrial function during ischemia/oxidative stress²⁹
- Counteracts age-dependent reduction in number of brain cells⁴⁹ and ACh receptors⁵⁰

Muscle Function and Growth Hormone Production

- Boosts growth hormone production in the young and elderly^{8,27,28,55}
- Increases fat oxidation,⁵⁵ muscle strength^{26,28} and reaction time,^{51,52} potentially improving balance



Supplement Facts

Serving Size 2 mL (approx. 2 droppers full)
Servings Per Container about 30

Amount Per Serving	% Daily Value
Glycerophosphocholine (from sunflower lecithin)	600 mg *

*Daily Value not established.

Other Ingredients: Vegetable glycerine, purified water.



HOW TO TAKE:

- 2 full droppers (2mL) of Liquid GPC 20 minutes prior to performance
- GPC Liquid is a part of the DFS Pre Workout Stack and can be used in combination with Pre-Workout Complex, Amino Complex and Hydration Complex

References

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