



Phosphatidylcholine

Indications

- Support of Hepatic function.
- Aids hepatic repair following drug and alcohol abuse or from hepatitis
- Cell membrane repair throughout the body, specifically brain function
- Cholesterol and lipid management by the liver
- Supports homocysteine regulation

General

Phosphatidylcholine (PC) is a key element in the formation of the cellular membrane lipid bilayer. As such it plays a pivotal role in maintaining efficient cellular function, specifically when discussing neuronal health and brain function. The choline from PC is used in production of acetylcholine, our memory molecule and key neurotransmitter.

Benefits & Mechanism of Action:

Neurological Activities

It is the precursor to making acetylcholine, a neurotransmitter that plays a key role in functions such as memory and cognition as well as movement and coordination. It has been reported to reduce the tremors associated with tardive dyskinesias.

Homocysteine regulation

PC can act as a methyl donor thus serve as an agent in the conversion of homocysteine to methionine.

- Olthof's study in 2005 gave men with high homocysteine levels a single 1.5 gram dose of PC and saw a 15% reduction in homocysteine levels. Ongoing treatment resulted in an 18% reduction over time.¹

Fat metabolism

Phosphatidylcholine is a lipotropic agent playing a role in fat emulsification. Aids fat transport in the liver.

Cellular Health

Phosphatidylcholine affects the cells ability to communicate and function as it contributes to cellular membrane fluidity. This is crucial for cellular efficiency as well as efficient detoxification as the membrane greatly affects what exits and enters the cell.

Dose:

- 500 - 5000 mg daily in divided dosages.
- In severe neurologic cases it may be dosed as high as 10,000mg daily.

Symptoms of Depletion:

Phosphatidylcholine depletion has not been studied so no true deficiency states exist however medical states that would benefit from higher PC intake include any of the neurologic conditions such as Alzheimer's Disease, Manic Depression, Memory related disorders, Parkinson's Disease, Tardive Dyskinesia, and Lyme disease with its frequent neurologic consequences.

Toxicities, Warnings and Interactions: none known.

Food Sources:

Phosphatidylcholine occurs as free choline in vegetables (especially cauliflower and lettuce), whole grains, liver, and soy. It occurs as lecithin (containing 10-20% phosphatidylcholine) in grains, legumes, meat and egg yolks.

References:

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4. Cohen BM, Lipinski JF, Altesman RI. Lecithin in the treatment of mania: double-blind, placebo-controlled trials. *Am J Psychiatry.* Sep1982;139(9):1162-4.
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