PhosphaLine™

100% Pure Phosphatidylcholine Concentrate

Available in 100 softgels, 300 softgels & 8 ounce (240mL) liquid

Discussion

Phospholipids contain two fatty acid tails linked to a group of molecules containing phosphorus. The phosphorus-containing "head" of a phospholipid is hydrophilic; the "tails" are hydrophobic and love oil. When phospholipids come in contact with water, the hydrophobic tails line up soldierfashion next to each other with the hydrophilic head groups on either side of the membrane forming a very thin flexible or "fluid", partially permeable, bi-layer structure.*

Phosphatidylcholine (PC), the largest of the basic four phospholipids that make up membranes, constitutes ~50% of the membrane surrounding every cell, as well as the membranes protecting intracellular organelles. PhosphaLine™'s polyenylphosphatidylcholine is rich in linoleic acid and linolenic acid. These and other polyunsaturated acids optimize the strength, fluidity and quality of membranes.*

Phosphatidylcholine is most concentrated in the liver and needed for the activity of detoxification enzymes. When the liver is damaged by viruses, toxins, drugs, metabolic disorders or alcohol the results are insufficient liver function including decreased enzyme activity and reduced detoxification. Supplementation with PPC is used by millions of individuals throughout the world to protect hepatocytes and support liver function and regeneration. It is also used to support healthy flow of bile.[1,2] Once PPC is incorporated into liver cells it restores and stabilizes the cellular structures which in turn regenerates healthy tissue and also co-regulates immune processes on the cellular level. It significantly reduces levels of inflammatory substances, increases antioxidant activity and decreases lipid peroxidation.*[3]

There are more than 39,000 MedLine citations for phosphatidylcholine. One of the most exciting describes the ability of PC to reverse a number of biochemical distortions and prevent cellular necrosis and /or apoptosis and demonstrates that perturbation of PC leads to cell death and subsequent replacement of PC re-establishes homeostasis.*[4]

Clinical Applications

- Protects Cell Membranes*[3]
- Supports Fluidity of Cell Membranes*[5]
- Supports Healthy Nervous System*[6]
- Protect Hepatocytes, Pancreatic Beta Cells, Gastric Mucosa*[7,8,9]
- Supports Cardiovascular Health*[10]
- Supports Healthy Gallbladder Function*[1]

*PhosphaLine™ is a 100% pure, all natural, GMO-free, soy-derived source of polyenylphosphatidylcholine (PPC). Unlike other phosphatidylcholine supplements, PhosphaLine™ contains more than 50% of a highly bioactive ingredient known as 1,2-dilinoleoylphosphatidylcholine.**

Essential Fatty Acids

Liver Support

Neurologic & Cognitive

PhosphaLine™ Softgels Supplement Facts

Serving Size: 1 Softgel

	Amount Per Serving	%Daily Value*
Calories	9	**
Calories from Fat	8	**
Total Fat	0.8 g	<1%
Saturated Fat	0.06 g	<1%
Polyunsaturated Fat	0.19 g	**
Monounsaturated Fat	0.59 g	**
Phosphatidylcholine	900 mg	**

* Percent Daily Values are based on a 2,000 calorie diet.
** Daily Value not established.

Other Ingredients: Gelatin and ethanol.

DIRECTIONS: As a dietary supplement, take 2-3 capsules per day or as directed by your healthcare practitioner.

DOES NOT CONTAIN: Wheat, gluten, corn protein, yeast, dairy products, artificial colors, sweeteners or preservatives.

CAUTION: Keep out of reach of children.

STORAGE: Keep tightly closed in a dry place at controlled room temperature 15° - 30°C (59°-86°F).

PhosphaLine™ Liquid Supplement Facts

Serving Size: One Teaspoon (5 mL)

	Amount Per Serving	%Daily Value*
Calories	28	**
Calories from Fat	25	**
Total Fat	2.82 g	4%
Saturated Fat	0.22 g	1%
Polyunsaturated Fat	0.64 g	**
Monounsaturated Fat	1.96 g	**
Phosphatidylcholine	3,000 mg	**
Vitamin E	7 IU	23%

* Percent Daily Values are based on a 2,000 calorie diet.
** Daily Value not established.

Other Ingredients: Phosphatidylcholine, glycerides, fatty acids, ethanol and natural Vitamin E.

DIRECTIONS: One half level teaspoon three times daily or as directed by your healthcare practitioner.

DOES NOT CONTAIN: Wheat, gluten, corn protein, yeast, dairy products, artificial colors, sweeteners, or preservatives.

CAUTION: Keep out of reach of children.

STORAGE: Keep tightly closed in a cool, dry place.

References

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3. Demirbilek S, et al. Effects of polyenylphosphatidylcholine on cytokines, nitrite/nitrate levels, antioxidant activity and lipid peroxidation in rats with sepsis. *Intensive Care Med*. 2004 Oct;30(10):1974-8. Epub 2004 Mar 26 [PMID: 15045164]
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6. Yehuda S, et al. The role of polyunsaturated fatty acids in restoring the aging neuronal membrane. *Neurobiol Aging*. 2002 Sep-Oct;23(5):843-53
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9. Ghyczy M, et al. Gastric mucosa protection by phosphtidylcholine (PC). APV/Mainz.
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All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

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