



Phosphatidyl Choline

For Brain, Liver and Cell Membranes

- Provides a well-delivered precursor to the brain neurotransmitter acetylcholine
- Provides specific hepatoprotective and liver function support
- Supports overall cellular membrane integrity

Phosphatidyl Choline (PC) is an important phospholipid constituent in the lipid bilayer cell membrane of all cells. PC plays a crucial role in the formation and structural integrity of these cell membranes, with far-reaching consequences for the health of the body. PC can also serve as a source of choline for the production of acetylcholine, a neurotransmitter that is essential for normal brain, memory and mood functions. PC is considered essential for normal brain development of the fetus. PC also plays an especially important role in the liver, where, as a key component of liver cell membranes, it has been shown to support normal liver function, and help protect the liver from alcohol, pollutants, viruses, and other toxic agents, such as mold and mycotoxins. Phosphatidylcholine which is beneficial for the brain, liver, and whole body.

Although sometimes referred to as “lecithin” by chemists, phosphatidylcholine is not equivalent to commercial lecithin sold in health food stores, which is a mixture of neutral and polar lipids. Phosphatidylcholine is a specific polar lipid, and comprises only about 20% of the lipid content of typical commercial lecithin.

PC supports brain function as a key precursor in the production of acetylcholine (PC choline acetylcholine). Acetylcholine supports effective communication across neurons, resulting in protection and enhancement of brain, memory, and mood functions.

Human studies indicate PC supports healthy liver function, and some researchers suggest this is due to PC's ability to increase cellular membrane fluidity and support the integrity of the membranes of liver cells. PC may also increase hepatic collagenase activity, enhance membrane associated metabolic functions, reduce peroxidative reactions, improve immune properties, and stabilize bile compositions. These positive effects revealed from a pharmacological standpoint have also been confirmed in clinical trials.

Suggested Use: As a dietary supplement, 1 to 4 softgels two or three times daily with meals, or as directed by a healthcare practitioner.

PC supports overall cellular function in several ways. It supports cell-membrane integrity through incorporation into the membranes, fluidizing the membranes; it supports cellular energy production by converting to fatty acids and glycerol which then get oxidized to produce energy; and it supports intracellular communication (signal transduction). Adequate PC levels are important in normal membrane signal transduction, which is crucial to normal cell function, growth and maintenance.

How does PC compare to straight choline, which is also available as a nutritional supplement? Choline comprises about 15% of the weight of phosphatidylcholine, and PC can also convert to choline in the body, where, as mentioned, it plays an essential role in the synthesis of the neurotransmitter acetylcholine, as well as the methyl donor betaine and other phospholipids. PC provides a better delivery form of choline than choline itself, and is more tolerable as well.* Animal (baboon) studies using each of these confirm that phosphatidylcholine has superior long-term hepatoprotective effects to straight choline, and plentiful human research on PC confirms the advantages of supplementing with PC.

It is clear that PC is an important nutrient for human health, supporting normal cellular membrane composition and integrity throughout the body, and specifically supporting the brain and liver. PC can be safely ingested in a wide range of doses, and has been safely used up to 9,000 mg daily in divided doses. Large doses may cause mild side effects, such as nausea, diarrhea and increased salivation. No major side effects have been noted.

Supplement Facts		
Serving Size	4 Softgels	
Servings Per Container	25	
	Amount Per Serving	% Daily Value*
Phosphatidylcholine (from soy lecithin)	1.54 g	†
† Daily Value not established. * Percent Daily Value are based on a 2,000 calorie diet		

Other ingredients: Gelatin, glycerin, purified water, polyglycol syrup, soybean oil.