

## Soy Lecithin (*Glycine max*)

**Common Names:** Soy bean; soy lecithin is an extract of the soy bean.

**Location:** Soy beans are grown in many countries around the world.

**Description:** The soy plant is a member of the legume family, which makes it able to intake nitrogen from the air itself, using this nitrogen to nourish itself. Soy plants are grown extensively in the Midwestern United States.

**Properties:** Soy Lecithin, like soy isoflavone concentrate, is an extract of the soybean. It contains a substance called phosphatidylcholine (PC), which is responsible for its medicinal effects. PC is a major part of the membranes surrounding the cells. But when it is consumed, it is broken down into the nutrient choline rather than being carried directly to cell membranes. Choline is used to make acetylcholine, a nerve chemical essential for proper brain function.

**Uses:** Soy lecithin provides the building blocks of healthy cell membranes, preventing damage especially to blood and liver cells by oxidation, free radicals, and toxins. Lecithin can also be used as a fat synthesizer that helps the body process fats better. More recently, lecithin has been proposed as a remedy for various psychological and neurological diseases, including Tourette's syndrome, Alzheimer's disease, and bipolar mood disorder (manic-depressive disorder). Benefits of soy lecithin for specific health conditions include treatment of the following: alcoholism, cirrhosis of the liver, liver cancer, and it helps the liver by helping liver cell membranes to renew and repair themselves, Alzheimer's disease and memory problems by providing a source of phosphatidylcholine, an essential element in the lining of brain cells, atherosclerosis, gallstones, and high cholesterol, by reducing blood-cholesterol levels, hangover by fighting fatigue and hypoglycemia and ensuring the liver releases glucose to cover skipped meals, and finally multiple sclerosis by providing the chemical phosphatidylserine, which reduces production of an immune-system chemical called tumor necrosis factor (TNF) that signals immune system cells called macrophages to attack nerve cells.

**Doses:** Soy lecithin is available in capsules. Other encapsulated soy phospholipids may be identified individually on product labels such as 3-sn-phosphatidylcholine, phosphatidylethanol-amine, and phosphatidylinositol acid, or as "total phospholipids." Soy lecithin is also available in an over-the-counter preparation called Leci-PS. Ordinary lecithin contains about 10 to 20 percent phosphatidylcholine. However, European research has tended to use soy lecithin products concentrated to contain 90 percent phosphatidylcholine. The following dosages are based on the more concentrated product. For psychological and neurological conditions, researchers have used doses of up to 5 to 10 grams (5,000 to 10,000 milligrams) three times daily. For liver disease, typical doses have been 350 to 500 milligrams taken three times daily. For high cholesterol, doses of 500 to 900 milligrams taken three times daily are common. The amounts of soy lecithin needed to produce results for people with Alzheimer's disease are relatively expensive, and can cause stomach upset. If you wish to try this type of therapy, take the recommended dosage for three weeks, then continue only if there are noticeable results with no unmanageable side effects.

**Warnings:** Soy lecithin may cause mild diarrhea when first used. Although soy lecithin helps reverse alcoholic cirrhosis of the liver, it is important to stop, or at least sharply reduce, alcohol intake when using lecithin.