

## Lecithin for Health

With the variety of supplements and number of claims made by pharmaceutical companies these days, it's hard to know what's really good for your health. One element that you can count on is lecithin.

Since its discovery in 1850 by French scientist Maurice Gobley, the effects of lecithin have wowed millions of people. The compound is a powerful emulsifier that holds a variety of purposes in many industries. Commercial food processing, textile, paint and, of course, pharmaceutical industries all rely on lecithin for the production of their goods. In addition, the effects of lecithin seem to transcend the commercial world, taking an important role in the health industry as well. Scientists have discovered the vital contributions that lecithin makes to the cells of every living organism on this planet.

### Emulsifier

When Mr. Gobley discovered lecithin over 150 years ago, he derived the compound from an egg yolk. For decades, right up until the 1930s, egg yolks were the main sources of commercial lecithin. The name itself comes from "lekithos", which is Greek for "egg yolk". Then, seemingly by chance, it was discovered that lecithin was found in a by-product created in the de-gumming process of soybean oil. Since then, soy remains the main source of commercial lecithin.

The benefits of lecithin to commercial food and materials production are numerous. Lecithin acts as an antioxidant, lubricant, anti-dusting agent, mixing and blending agent, and a wetting and separating agent. But even while all of these functional properties make lecithin extremely useful, its main purpose is still as a widely used emulsifier. What's more, it is also one of the safest. In 1998, the United States' Food and Drug Administration named lecithin as one of the few emulsifiers currently available on the market that are generally safe for consumption.

Lecithin makes astounding contributions within the food industry. It is often added to foods that are high in fat and oils, such as chocolate, shortening, margarine, baked goods, confectionery coatings, peanut butter, powder mixes, and dietary foods. The emulsifying properties keep the fats from separating away from other ingredients. Lecithin also promotes crystallization, stabilization, antioxidation and spattering control.

Animals can also benefit from the wonders of lecithin. This compound is often added to animal feed, for the same purposes of stabilizing the products and providing antioxidant properties.

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Lecithin is one of the major components making up the cell membrane, that thin semi-permeable layer that envelops the surfaces of cells. This layer is mainly comprised of phospholipids including phosphatidylcholine (PC), phosphatidylinositol (PI), and phosphatidylethanol (PE). Many biochemists use phosphatidylcholine and lecithin synonymously. They consider this component to be most significant, not only because it can be synthesized to form one essential nutrient called choline, but also because of the role it plays in stabilizing fat in the bile.

As one of the major precursors of the effects of lecithin, phosphatidylcholine contributes to the structural integrity and repair of cell membranes. Its functions include the information flow that occurs within cells from DNA to RNA to proteins, the formation of cellular energy and the signal transduction or intracellular communication.

Studies have shown that phosphatidylinositol, on the other hand, may stimulate reverse cholesterol transport by enhancing the flux of cholesterol into HDL and by promoting the transport of HDL cholesterol to the bile and liver. This compound is partly responsible for the effect of lecithin in reducing high cholesterol levels in the blood stream, as well helping in normal liver function.

Many studies have shown the benefits of lecithin for health. If you're not getting enough, consider boosting your lecithin intake through food sources or pharmaceutical supplements.