

Dear Friend,

Thank you for your interest in Nutrasal and PhosChol. We are a highly specialized company with over 30 years of experience in highly purified phospholipids. It is all we do. And, this is why we remain the industry leader. The science behind PhosChol and purified phospholipids can at times be very complex. We are always available to answer any questions you may have. Please do not hesitate to call should you require any additional information.

Naturally derived from soybean, PhosChol is the only 100 percent purified source of polyenylphosphatidylcholine (PPC). It is also the richest source of 1,2 dilinoleoylphosphatidylcholine (DLPC), the active ingredient responsible for its superior therapeutic efficacy. In fact, PhosChol is the only orally available product capable of delivering a therapeutic dose of DLPC. The pharmaceutical grade purity also makes PhosChol hypoallergenic and no traces of soy protein or GMO residue have been found in over 30 years. No other phosphatidylcholine product can compare to PhosChol in purity, safety, efficacy and price.

PPC/DLPC has been thoroughly investigated in several diseases, especially in liver disorders, dyslipidemia and atherosclerosis, diabetes associated sequelae, and gastrointestinal inflammation, but also in skin disorders, renal and lung disorders, gestosis, and neurological changes. **Overall, nearly 400 clinical studies involving 15,000 plus patients and more than 1,000 pharmacological investigations have been conducted.**

Over the past few years, we noticed an increasing number of physicians recommending and purchasing PhosChol for their patients with autism. Doctors and parents report that adding PhosChol to the nutritional regimen realized noticeable differences in disposition, ability to interact, and communication skills, among others. We certainly recognize that PhosChol will not produce the same results in every child, however, a significant amount of positive feedback suggests that it may be beneficial for many.

The use of purified PPC/DLPC is both physiological and holistic and acts primarily on cellular repair, regeneration, proliferation and metabolism, with special emphasis on vulnerable organs such as the liver. Based on the extensive clinical and pharmacological data available from a broad range of pathologies, we believe purified PPC/DLPC can play a fundamental role in the **gut, liver, brain connection** often discussed in autism spectrum disorders. We have identified several spectrum related areas in which the biological activity of purified PPC/DLPC has been clinically shown effective. The enclosed literature highlights the beneficial role of PPC/DLPC in these four areas:

- Liver Detox and Cell Membrane Therapy
- Leaky Gut Repair
- Enhanced Neurological Processes
- Enhanced Glutathione Production and Restored SAME Levels

We hope you will consider PhosChol as an essential component of your targeted nutritional intervention and wellness protocol.

Please do not hesitate to contact us should you require any information or have any questions regarding the administration and biological activity of purified polyunsaturated phosphatidylcholine in diseases. We will be happy to assist you.

Best of health,



Bruce Perry

Autism Frequently Asked Questions

Q: What makes PhosChol different or better than other PC products?

A: PhosChol provides a 100 percent purified source of Polyenylphosphatidylcholine (PPC). It is the only orally available PPC product on the market. There are absolutely no other phospholipids in PhosChol that could compete for absorption and lower the therapeutic value of the primary active ingredient. Only PhosChol can deliver a therapeutic dose of 1,2 dilinoleoylphosphatidylcholine (DLPC) the main active component in PPC.

Q: Does it come in a liquid form?

A: Yes. PhosChol comes in an 8 oz. and 16 oz. bottle. An 8 oz. bottle contains 48 teaspoons. The average dose for a child under 80 pounds is approximately $\frac{1}{2}$ - $\frac{2}{3}$ teaspoon.

Q: How does the liquid taste?

A: There are no flavor additives in PhosChol. The liquid has a natural and slightly nutty flavor. If needed you can also mix PhosChol Liquid with an acidic juice or smoothie, oatmeal, applesauce etc.

Q: How much should I give my child?

A: The recommended adult dose is 1.8 grams to 2.7 grams per day or roughly 2 to 3 grams. This equates to 2-3 capsules per day or $\frac{2}{3}$ to 1 full teaspoon per day. For children under 80 pounds we recommend 1.8 - 2 grams per day which is equivalent to 2 capsules and $\frac{1}{2}$ - $\frac{2}{3}$ teaspoon per day. One capsule contains 900 milligrams of PPC and one teaspoon contains 3,000 milligrams of PPC. For best results we also recommend you split the dose in half and administer once in the morning and once in the evening.

Q: PhosChol is derived from soy, are there any problems with soy allergies?

A: No. The reason for this is the level of purity of PhosChol. Because PhosChol is so highly purified there are no residual soy proteins remaining in the preparation. We have had this question many times and to date we have not had any reports of an allergic reaction. PhosChol is non-allergenic.

Q: Are there any side effects?

A: PhosChol is very safe. The primary active ingredient PPC/DLPC has been used successfully for over 40 years, has been subjected to more than 400 clinical studies with approximately 15,000 patients and over 1,000 pharmacological investigations with no known side effects, contraindications, or interactions being reported. At extremely high doses (20 plus grams per day) or in the case of very sensitive bowel, flatulence, soft stool and/or diarrhea has been reported.

Q: How does PhosChol compare to an injectable PC?

A: PhosChol: contains 900mg PPC per capsule or roughly 450mg DLPC per capsule as its main active ingredient. We know from absorption studies with double-labeled DLPC that up to 52% of the DLPC is absorbed intact. PhosChol therefore, provides up to 225mg of bio-available DLPC per capsule. An oral application using a recommend dose of 2-3 capsules of PhosChol per day provides 450mg - 675mg DLPC and $\frac{2}{3}$ - 1 full tsp of liquid concentrate provides 500 - 750mg DLPC per day.

Injectable: one 5ml ampoule of an intravenous preparation of Essentiale or Lipostabil IV (or compounded equivalent) contains 250mg PPC or roughly 125mg of DLPC. This amount is injected without loss. Although it is possible to administer a maximum of 4 ampoules per day intravenously, the recommend dose per day is 2 ampoules, which provides up to 250mg of DLPC per day.