Knight Wellness

CHOLINE SHIELD

UNIQUE LIQUID PERFORMANCE-ENHANCING
FORMULA FOR BODY AND MIND



CHOLINE SHIELD GETS THE JOB DONE

Only Choline Shield combines both choline and citrate. This is important because citrate activates choline as it energizes and alkalizes the cell. Choline Citrate replenishes choline stores quickly and effectively, improving endurance and performance.*

Choline Shield comes in a liquid form to guarantee optimum absorption and purity. The commonly used form of choline, choline bitartrate, contains cornstarch and may contain reactive or irritative antigens. Choline Shield is contaminant free, more bioavailable than tablets or capsules and convenient.*

Choline Citrate has an important mission. **Choline Shield** can increase magnesium uptake. No other form of choline has this benefit. **Choline Shield** is essential for people who have a block in the primary calcium-magnesium ATPase uptake system, such as individuals with chronic fatigue syndrome or fibromyalgia.

This is the pathway that creates energy and takes magnesium into cells. The caveat is that the pathway requires adequate energy to work efficiently. When stress or illness compromises the immune system, and when diet, toxins, or immune reactions cause excess cellular acidity (metabolic acidosis), magnesium uptake cannot take place, and this important pathway is impaired. Bypassing the energy pathway, Choline Shield and Magnesium Shield together create a neutral charge to carry magnesium effortlessly through the cell membrane.*

Those who take magnesium but still show signs of magnesium deficiency need **Choline Shield**. Cramps, muscle twitches, and spasms that persist even when magnesium is supplied indicate uptake impairment. **Choline Shield is specifically designed to facilitate magnesium uptake for everyone.***

ACTIVATED CHOLINE HAS OTHER UNIQUE BENEFITS

- Athletes in particular can benefit from Choline Shield supplementation. Neurotransmitters that are dependent upon choline, such as acetylcholine, can affect physical performance. Studies demonstrate that exercise significantly reduces choline levels.*
- Choline Shield can increase energy for individuals who fatigue easily.*
- Choline is necessary for the proper transport and metabolism of fats. Without choline, fat accumulates in the liver. Choline Citrate increases bile acid production for gall bladder health and supports weight loss.*
- Choline Citrate enhances liver detoxification, helping it remove toxic waste products from the bloodstream.*
- Choline is essential for transmission of nerve impulses and memory function. Studies indicate that choline deficiency is linked to neurological disorders, including Parkinson's disease and Alzheimer's disease.

CHOLINE CITRATE FOR BODY AND MIND

In a recent study, researchers examined random, placebo-controlled trials of choline deficiency in cognitive disorders. The reviewers found that choline had significant beneficial effects on memory function and behavior. In another study, researchers found that choline supplementation improved subjects' memory, especially in Alzheimer's patients.*

Choline helps the body as well as the mind. Studies show that in trained athletes, physical exertion can deplete choline stores by as much as 40%. In one such study, researchers concluded that "the reductions in plasma choline associated with strenuous exercise may reduce acetylcholine release, and could thereby affect endurance or performance."*

ONE TEASPOON OF CHOLINE SHIELD CONTAINS	
ENERGIZED NUTRIENTS	
Choline Citrate	1,300 mg
Glycerin (vegetable)	1,300 mg
Other Ingredients: None	
U.S. Pat. No. 8,017,160	
WARNING	TYPICAL DOSAGE
Pregnant and nursing mothers need to check with their health professional before taking supplements.	As a dietary supplement, take one (1) teaspoon in juice or water or as directed by your health professional. Available in 7.86-ounce bottles. Servings per container - 47

REFERENCES

- 1. Fioravanti M, Yanagi M: Cytidinediphosphicholine (CDP choline) for cognitive and behavioral disturbances associated with chronic cerebral disorders in the elderly. *Chochrane Database Syst. Rev* 2005 Apr 18; (2):CD000269.
- 2. Canty DJ, Zeisel SH: Lecithin and choline in human health and disease. Nutr Reviews 1994; 52: 327-339.
- 3. Zeisel SH. Choline: needed for normal development of memory. J Am Coll Nutr 2000 Oct; 19 (5 Suppl):528S-531S.
- 4. Zeisel SH. Choline: critical role during fetal development and dietary requirements in adults. Ann Rev Nutr 2006;26:229-50.
- 5. Spector SA, Jackman MR, Sabounjian LA, Sakas C, Landers DM, Willis VVT: Effect of choline supplementation on fatigue in trained cyclists. *Med Sci Sports Exerc* 1995 May; 27(5): 668-73.
- 6. Conlay LA, Sabounjian LA, Wurtman RJ: Exercise and neuromodulators: choline and acetylcholine in marathon runners. *Int J Sports Med* 1992 Oct; 13 Suppl 1:S141-2.
- 7. Secades JJ, Lorenzo JL. Citicoline: Pharmacological and clinical review, 2006 update. *Methods Find Exp. Clin Pharmacol.* 2006 Sep;28 Suppl B:1-56.

