

NeuronaStem®

NeuronaStem® has been carefully crafted by healthcare providers working in the field of cognitive decline reversal to provide the optimal combination of scientifically validated brain-focused nutrients to support neuroplasticity. A common challenge for practitioners working in the field is the necessity to use several different products to provide the spectrum of nutrients needed to support cognitive function.

NeuronaStem® offers an elegant solution. As a single product, NeuronaStem delivers therapeutic doses of Whole Coffee Fruit extract, Bacopa Moniera, Magnesium Threonate (the only form that has been shown to cross the blood-brain barrier), and Citicoline.

Brain-derived Neurotrophic Factor (BDNF) & NeuronaStem®



Our formula contains 100mg of Whole Coffee Fruit Extract which was found to increase blood levels of BDNF by an impressive 143% vs. baseline after 60 minutes.²

A second study confirmed that whole coffee fruit extract was able to increase blood levels of BDNF significantly more than placebo or a cup of coffee.³

NeuronaStem® contains Magnesium L-Threonate (MgT), a unique form shown to increase brain levels of MgT.



MgT improved short-term memory by 18% and long-term memory by 100% in animal studies. This form of magnesium supports density of synaptic connections between brain cells and supports brain signaling pathways that are important for cognitive health.^{4,5}

NeuronaStem® also contains Bacopa, an Ayurvedic herb used to support cognitive function, and choline, a nutrient that has been shown to play a key role in brain development, methylation, and positive epigenetic changes. Both bacopa and choline have been shown to support memory.^{6,7,8}

General Suggested Usage: Take 2 caps daily or as recommended by your health care professional.

Supplement Facts

Serving Size: 2 Capsules
Servings per Container: 45

	Amount Per Serving	% Daily Value
Calories	0	
Sodium	10 mg	<1%
Total Carbohydrate	0 g	0%
Dietary Fiber	0 g	0%
Magnesium Threonate	150 mg	**
Citicoline	250 mg	**
Bacopa Monieri Extract	500 mg	**
Whole Coffee Fruit Extract	100 mg	**

Daily Values are based on a 2,000 calorie diet.
** Daily Value Not Established

Other Ingredients: Gelatin Capsule (Gelatin, Purified water), Microcrystalline Cellulose.

DOES NOT CONTAIN: Sugar, wheat, casein, gluten, soy, milk, egg, yeast, preservatives, artificial flavorings, colorings, peanuts, corn, tree nuts or fish.

Formulation Key Features:

- Focused on modulating brain-derived neurotrophic factor (BDNF)
- Researched compounds for supporting memory
- Synaptic connections and neuroplasticity have been shown to be able to be positively impacted even later in life with BDNF, a focus of this formula.

Benefits:

- Combination of important herbs and nutrients focused on overall brain function
- Brain-derived neurotrophic factor (BDNF), a focus of this formula, has been shown to support synaptic plasticity & long-term memory¹
- Higher BDNF may protect against future development of Alzheimer's and/or Dementia¹
- Comprehensive cognitive health formulation
- Fewer products / capsules needed for clinicians focused on cognitive decline
- Multiple mechanisms for cognitive function are addressed in this synergistic formula

NeuronaStem® References

1. Weinstein, Galit, et al. "Serum Brain-Derived Neurotrophic Factor and Risk of Dementia: The Framingham Heart Study." *Alzheimer's & Dementia*, vol. 9, no. 4, 2013, doi: 10.1016/j.jalz.2013.05.443.
2. Reyes-Izquierdo, Tania, et al. "Modulatory Effect of Coffee Fruit Extract on Plasma Levels of Brain-Derived Neurotrophic Factor in Healthy Subjects." *British Journal of Nutrition*, vol. 110, no. 03, 2013, pp. 420-- 425., doi: 10.1017/S0007114512005338.
3. Reyes-Izquierdo, Tania, et al. "Stimulatory Effect of Whole Coffee Fruit Concentrate Powder on Plasma Levels of Total and Exosomal Brain-Derived Neurotrophic Factor in Healthy Subjects: An Acute WithinSubject Clinical Study." *Food and Nutrition Sciences*, vol. 04, no. 09, 2013, pp. 984-990., doi: 10.4236/fns.2013.49127.
4. Slutsky, Inna, et al. "Enhancement of Learning and Memory by Elevating Brain Magnesium." *Neuron*, vol. 65, no. 2, 2010, pp. 165-177., doi: 10.1016/j.neuron.2009.12.026.
5. Wang, Jun, et al. "Magnesium L-Threonate Prevents and Restores Memory Deficits Associated with Neuropathic Pain by Inhibition of TNF- α ." *Pain Physician*, vol. 16, no. 5, Sept. 2013, pp. E563-E575.
6. Bekdash, Rola Aldana. "Choline and the Brain: An Epigenetic Perspective." *Advances in Neurobiology*, vol. 12, 2016, pp. 381-399. EBSCOhost, doi: 10.1007/978-3-319-28383-8_21.
7. Zeisel, Steven H. "Nutritional Importance of Choline for Brain Development." *Journal of the American College of Nutrition*, vol. 23, no. 6 Suppl, Dec. 2004, pp. 621 S-626S, doi: 10.1080/07315724.2004.10719433.
8. Promsuban, Charkriya, et al. "Bacopa Monnieri Extract Enhances Learning-Dependent Hippocampal LongTerm Synaptic Potentiation." *Neuroreport*, vol. 28, no. 16, 08 Nov. 2017, pp. 1031-1035. EBSCOhost, doi: 10.1097/WNR.0000000000000862.
9. Barbagallo, M., and L. Dominguez. "Magnesium and Aging." *Current Pharmaceutical Design*, vol. 16, no. 7, 2010, pp. 832-839., doi: 10.2174/138161210790883679.
10. Rude, Robert K., et al. "Skeletal and Hormonal Effects of Magnesium Deficiency." *Journal of the American College of Nutrition*, vol. 28, no. 2, 2009, pp. 131-141., doi: 10.1080/07315724.2009.10719764.
11. Abumaria, N., et al. "Effects of Elevation of Brain Magnesium on Fear Conditioning, Fear Extinction, and Synaptic Plasticity in the Infralimbic Prefrontal Cortex and Lateral Amygdala." *Journal of Neuroscience*, vol. 31, no. 42, 2011, pp. 14871-14881., doi: 10.1523/jneurosci.3782-11.2011.
12. Hellhammer, J., et al. "Effects of Soy Lecithin Phosphatidic Acid and Phosphatidylserine Complex (PAS) on the Endocrine and Psychological Responses to Mental Stress." *Stress*, vol. 7, no. 2, 2004, pp. 119-126., doi: 10.1080/10253890410001728379.
13. Suzuki, Satoru, et al. "Oral Administration of Soybean Lecithin Transphosphatidylated Phosphatidylserine Improves Memory Impairment in Aged Rats." *The Journal of Nutrition*, vol. 131, no. 11, 2001, pp. 2951- 2956., doi: 10.1093/jn/131.11.2951.
14. Zanotti, A, et al. "Chronic Phosphatidylserine Treatment Improves Spatial Memory and Passive Avoidance in Aged Rats." *Psychopharmacology*, vol. 99, no. 3, 1989, pp. 316-321., doi: 10.1007/bf00445550.
15. Engel, Rolf R., et al. "Double-Blind Cross-over Study of Phosphatidylserine vs. Placebo in Patients with Early Dementia of the Alzheimer Type." *European Neuropsychopharmacology*, vol. 2, no. 2, 1992, pp. 149-155., doi: 10.1016/0924-977x(92)90025-4.
16. Moreno, M De Jesus Moreno. "Cognitive Improvement in Mild to Moderate Alzheimer's Dementia after Treatment with the Acetylcholine Precursor Choline Alfoscerate: A Multicenter, Double-Blind, Randomized, Placebo-Controlled Trial." *Clinical Therapeutics*, vol. 25, no. 1, 2003, pp. 178-193., doi: 10.1016/S0149-2918(03)90023-3.