

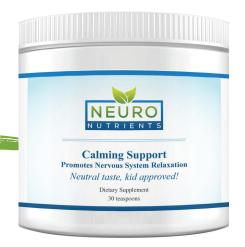
# Calming Support

Promotes Nervous System Relaxation - Neutral taste, kid approved!

#### **Directions:**

Age 8 years give 1/2 teaspoon daily as needed, ages 9-13, give 1 teaspoon daily as needed, ages 14+ give 1.5 teaspoons daily as needed Mix in 2-3 ounces of preferred liquid or food.

Serving Size: 30 teaspoons



## Ingredients:

Inositol 2000.00 mg L-Theanine (SUNTHEANINE®) 200.00 mg Vitamin B-6 (Pyridoxal 5 Phosphate) 40.00 mg Magnesium (TRAACS® Magnesium Bisglycinate Chelate) 50.00 mg Magnesium L-Threonate 50.00 mg Passionflower (Passiflora incarnata L.) Aerial Powder 50.00 mg Organic Coconut Sugar 500.00 mg

## Clinical Applications:

- Naturally encourages calmness and relaxation without sedation
- Supports reduction in hyperactive behaviors, supporting focus and attention
- Promotes stress reduction and resilience
- Promotes reduction in irritability
- Supports reducing obsessional thoughts

- Supports production of inhibitory neurotransmitters
- Promotes reduction in unwanted side effects of stimulant medications
- May reduce negative feelings and symptoms during pre-menstruation (PMS)

SUNTHEANINE® is used in Calming Support, and is a patented form of I- theanine that is patented for its enzymatic process that results in an enantiomerically pure L-thenanine. This is not an extract of green tea but rather is produced via a patented process that mimics the natural process in green tea leaves, resulting in a 100% pure L-isomer-theanine. Warning: Contact your physician or medical provider prior to use



### Description:

Over active nervous systems can produce feelings of anxiety, agitation, irritability, aggressiveness, obsessions, and insomnia. Pharmaceutical medications are not the only solution to help facilitate the nervous system slowing down to a more calm and relaxed state. Calming Support was designed to naturally slow down overactive nervous systems so that the brain can find a natural path to relaxation and tranquility without feelings of sedation or decreased focus. Each ingredient was carefully chosen based on years of use in clinical practice and supported by peer reviewed clinical science.



## Formula Ingredient And Peer Reviewed Supportive References:

#### Vitamin B6 (pyridoxine 5 phosphate)

Vitamin B6 is important for helping us biosynthesize (or create) our neurotransmitters which play an important role in cognitive and brain development and function. B6 helps make one of the brains major inhibitory (or calming) neurotransmitters that have been shown to improve attentional processes (3). Disorders of B6 metabolism (being able to break down B6, so that the brain and body can use it) are more common in attention disorders and seizure disorders (1). Clinical trials have demonstrated supplementing with B6 and magnesium has reduced hyperactivity and aggression in children with ADHD, and improved school attention. When the study participants stopped the magnesium and B6 supplementation, the symptoms returned after two weeks (2).

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- 2. Mousain-Bosc M., Roche M., Polge A., Pradal-Prat D., Rapin J., Bali J.- P. Improvement of neurobehavioral disorders in children supplemented with magnesium-vitamin B6. I. Attention deficit hyperactivity disorders. Magnesium Research. 2006;19(1):46–52



3. Novell, R., Esteba-Castillo, S., & Rodriguez, E. (2020). Efficacy and safety of a GABAergic drug (Gamalate® B6): effects on behavior and cognition in young adults with borderline-to-mild intellectual developmental disabilities and ADHD. Drugs in context, 9, 212601. https://doi.org/10.7573/ dic.212601

#### Magnesium (L-threonate and bisglycinate)

Magnesium activates nerve channels in the brain that are fundamental to the process of learning, memory, and function (6). Magnesium helps lower one of the excitatory (or stimulating) neurotransmitters in our brain called glutamate. When glutamate is high, or in excessive levels in the brain, it can contribute to symptoms such as agitation, irritability, treatment resistant depression, headaches, insomnia, anxiety, and inattention (3,7). The supplemental forms of magnesium chosen for this formulation were critical to achieve the type of support intended. Magnesium bisglycinate is a form of magnesium that has been shown to have the highest rates of bioavailability, is more easily absorbed through the gut, and increases blood magnesium levels (1). Magnesium threonate has been found to be more easily absorbed into the brain, supports neurological function, and can even help repair neurological function that has been lost. Magnesium has been shown to improve executive function and cognitive processing, two symptoms in those with inattention disorders that are challenging and hallmarks of the disorder (4). In other compelling research, a study evaluating over 100 children with ADHD, found that 95% of them were magnesium deficient (2). In another study, magnesium was given with B6, and after an eight-week period, a significant reduction was seen in hyperactivity, aggressiveness, and inattention. When the study participants stopped the magnesium and B6 supplementation, the symptoms returned after two weeks (5). Calming Support contains both forms of magnesium (threonate and bisglycinate) and B6.

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- 2. Kozielec T, Starobrat-Hermelin B. Assessment of magnesium levels in children with attention deficit hyperactivity disorder (ADHD). Magnes Res. 1997 Jun;10(2):143-8. PMID: 9368235.
- 3. Kris-Etherton, P. M., Petersen, K. S., Hibbeln, J. R., Hurley, D., Kolick, V., Peoples, S., Rodriguez, N., & Woodward-Lopez, G. (2021). Nutrition and behavioral health disorders: depression and anxiety. Nutrition reviews, 79(3), 247–260. https://doi.org/10.1093/nutrit/nuaa025
- 4. Liu, G., Weinger, J. G., Lu, Z. L., Xue, F., & Sadeghpour, S. (2016). Efficacy and Safety of MMFS-01, a Synapse Density Enhancer, for Treating Cognitive Impairment in Older Adults: A Randomized, Double-Blind, Placebo-Controlled Trial. Journal of Alzheimer's disease: JAD, 49(4), 971–990. https://doi.org/10.3233/JAD-150538



- 5. Mousain-Bosc M., Roche M., Polge A., Pradal-Prat D., Rapin J., Bali J.- P. Improvement of neurobehavioral disorders in children supplemented with magnesium-vitamin B6. I. Attention deficit hyperactivity disorders. Magnesium Research. 2006;19(1):46–52.
- 6. Slutsky I, Abumaria N, Wu LJ, Huang C, Zhang L, Li B, Zhao X, Govindarajan A, Zhao MG, Zhuo M, Tonegawa S, Liu G. Enhancement of learning and memory by elevating brain magnesium. Neuron. 2010 Jan 28;65(2):165-77. doi: 10.1016/j.neuron.2009.12.026. PMID: 20152124.
- 7. Zarate C, Duman RS, Liu G, Sartori S, Quiroz J, Murck H. New paradigms for treatment-resistant depression. Ann N Y Acad Sci. 2013 Jul;1292:21-31. doi: 10.1111/nyas.12223. PMID: 23876043; PMCID: PMC3936783.

#### Inositol (myo-inositol)

Inositol is a pseudo B vitamin that plays a role in cell membrane signaling and release of neurotransmitters. Myo-inositol (the form found in Calming Support) is the form of inositol found in the nervous system. Deficiencies in inositol can result in excessive irritability, worry, and restlessness (2). Inositol has been reported as an effective agent for those with depression, panic disorder, and obsessive-compulsive disorder (4). In clinical practice, we have experiencing using inositol as an agent that is most effective in reducing anxiety, autistic type related stimming, and reducing obsessive thoughts and patterns. Outside of psychiatric uses, inositol has been proven effective in reducing symptoms of metabolic syndrome (high blood pressure, high cholesterol, and insulin resistance) especially in those with poly cystic ovarian syndrome (1,5). Inositol has also been proven to reduce negative feelings in those with premenstrual dysphoric disorder, otherwise known as PMS (3).

- 1. Arentz S, Smith CA, Abbott J, Bensoussan A. Nutritional supplements and herbal medicines for women with polycystic ovary syndrome; a systematic review and meta-analysis. BMC Complement Altern Med. 2017 Nov 25;17(1):500. doi: 10.1186/s12906-017-2011-x. PMID: 29178904; PMCID: PMC5702141.
- Colodny L, Hoffman RL. Inositol--clinical applications for exogenous use. Altern Med Rev. 1998 Dec;3(6):432-47.
   PMID: 9855568.
- 3. Gianfranco C, Vittorio U, Silvia B, Francesco D. Myo-inositol in the treatment of premenstrual dysphoric disorder. Hum Psychopharmacol. 2011 Oct;26(7):526-30. doi: 10.1002/hup.1241. PMID: 22031267.
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#### L theanine (SUNTHEANINE®)

L theanine is a non protein amino acid in found in green tea that is the component responsible for the promotion of relaxation. It can bind to and down regulate glutamate receptors (that cause excitability in the brain) and can increase GABA receptors, which can help increase calmness in the brain (4). In a double blind, placebo controlled trial, L theanine was found as an effective treatment for boys with ADHD when compared to placebo (3). In healthy adults, 200mg of L theanine was given daily, and after four weeks, stress related symptoms decreased and cognitive function and verbal fluency scores increased (1). In another study with humans, after administration of 200mg of L-theanine, a significant increase in alpha brain waves were noted after 40 minutes. Alpha waves induce a state of relaxation in the brain (2). The patented form of L-theanine, Suntheanine, used in clinical studies, was intentionally sourced for this formula.

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## Passionflower (Passiflora incarnata L.)

Passionflower has been used extensively in plant medicine and is best known for its anxiety reducing and calming effects on the nervous system (4,5). Anxiety disorders are typically treated with controlled medications (categorized as benzodiazepines) that can have unwanted sedative effects and impair the ability to perform job related tasks. Passionflower was studied in a randomized controlled trial with human subjects, and showed to be just as effective in treating anxiety as one of these benzodiazepine medications, called Oxazepam, however it had an advantage because it did not produce unwanted side effects of impaired job function (2). When given by medical providers alone for the treatment of anxiety, in a study with nearly 3,000 patients, passionflower showed very clinically significant improvement in anxiety scores after two weeks, compared to baseline (3). In addition, passionflower showed similar clinical benefit for treating ADHD compared to the stimulant medication, methylphenidate (also



known as Quillivant or Daytrana), when given in a clinical trial. However, passionflower again showed an advantage in regards to side effects, as the stimulant medication group reported anxiety and decreased appetite (1). When given with an antidepressant (Sertraline, also known as Zoloft), passionflower was shown to be effective as an add on therapy in reducing anxiety (6).

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