

Chill Out

CLINICAL APPLICATIONS

- Supports a State of Calmness and Relaxation
- Promotes Balanced Mood
- Enhances Cognitive Performance and Memory



ENDOCRINE HEALTH

This product is designed to promote a state of calm and improve cognitive function, including mood, focus, learning and memory. The formula contains a combination of ingredients designed to address stressful situations in the moment or may be taken in preparation for these events. This product can be used to address daily stress by providing a state of relaxed focus without drowsiness.

Overview

Managing increasing stress levels has been brought to the forefront of today's "on-the-go" societal mentality. Stress is beneficial in small quantities but causes cognitive decline and mood challenges when too often or severe. The nervous system contains neurons responsible for processing and transmitting information using neurotransmitters and electrical ion channels. Neurotransmitter receptors are the gateways for communication between nerve cells. Neurotransmitter imbalance is one of the consequences of high stress. The ingredients in this product support balance of neurotransmitters while promoting calming focus.

L-Theanine†

L-theanine is an amino acid found abundantly in green tea. L-theanine has been shown to quickly improve stress perception and resilience. The stress-buffering mechanisms of L-theanine have been connected to its ability to increase serotonin and dopamine production in the brain.¹ L-theanine has also been shown to significantly increase alpha brain wave activity, which is critical for increasing attention as well as promoting a sense of relaxation.² In a study on healthy volunteers, electroencephalograph (EEG) readings of participants were recorded following the ingestion of 50 mg of L-theanine. The researchers found a greater increase in alpha brain wave activity versus placebo.² L-theanine has also been shown to have a protective effect on nerve cells overstimulated by the excitatory neurotransmitter glutamate.³

GABA†

Gamma-amino butyric acid (GABA) is the primary inhibitory neurotransmitter in the brain. GABA provides a calming effect and is a primary component of the body's stress fighting mechanisms. GABA is produced in the brain and may be supplemented in the diet. GABA has been shown in published research studies to promote relaxation effects in the central nervous system (CNS). In a double-blind study using healthy volunteers, EEG readings were obtained after 100 mg of GABA was administered. GABA produced a highly significant increase in alpha waves, as well as a significant decrease in beta waves, when compared to the control group.⁴ Alpha brain waves are associated with relaxed and effortless focus, while beta waves are associated with stress, restlessness and scattered thoughts. Therefore, an increase in alpha to beta waves is associated with improved concentration and a state of centered relaxation. In a randomized, single-blind, placebo-controlled, crossover-designed study, among 63 adults given 100 mg of GABA versus placebo, those who took the GABA-containing capsules showed alleviation of stress induced by mental tasks.⁵

Huperzine A†

A purified component derived from Chinese club moss, huperzine A has been found to support healthy cognition in a range of animal models, and phase IV clinical trials demonstrated its promotion of improved recall and cognition in elderly subjects.⁶ As a potent and selective acetylcholinesterase inhibitor, huperzine A helps to improve memory and support optimal cognitive health. A double-blind and matched pair study looked at 34 pairs of middle school students complaining of memory inadequacy and divided them into two groups by psychological health inventory (PHI), similar memory quotient and same sex and class. After four weeks, the huperzine A group (50 mcg twice a day) showed twice the improvement of the placebo group.⁷

† These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Directions

2 full droppers (2 mL) two to three times per day or as recommended by your health care professional.

7. Sun QQ, Xu SS, Pan JL, Guo Hm, Cao WQ. Huperzine- A capsules enhance memory and learning performance in 34 pairs of matched adolescent students. *Chung Kuo Yao Li Hsueh Pao.* 1999 Jul;20(7):601-3.

Supplement Facts^{V1}

Serving Size 2 Full Droppers (2 mL)

Servings Per Container 30

2 full droppers contain	Amount Per Serving	% Daily Value
Calories	5	
Total Carbohydrate	1 g	<1%*
Gamma Aminobutyric Acid (GABA)	100 mg	**
L-Theanine (Suntheanine®)	100 mg	**
Huperzine A (from <i>Huperzia serrata</i> Whole Plant Extract)	50 mcg	**

* Percent Daily Values are based on a 2,000 calorie diet.

** Daily Value not established

References

1. Yokogoshi H, Kobayashi M, Mochizuki M, Terashima T. Effect of theanine, r-glutamylethylamide, on brain monoamines and striatal dopamine release in conscious rats. *NeuroChem Res* 1998; 23(5):667-73.
2. Nobre AC, Rao A, Owen GN. L-theanine, a natural constituent in tea, and its effect of mental state. *Asia Pac J Clin Nutr* 2008; 17 Suppl 1:167-8.
3. Kakuda T, Hinoi E, Abe A, et al. Theanine, an ingredient of green tea, inhibits [3H]glutamine transport in neurons and astroglia in rat brain. *J Neurosci Res* 2008;86(8):1846-56.
4. Abdoua AM, Higashiguchi S, Horie K, et al. Relaxation and immunity enhancement effects of γ -Aminobutyric acid (GABA) administration in humans. *BioFactors* 2006;26: 201-208.
5. Yoto A, Murao S, Motoki M, Yokoyama Y, Horie N, Takeshima K, Masuda K, Kim M, Yokogoshi H. Oral intake of γ -aminobutyric acid affects mood and activities of central nervous system during stressed condition induced by mental tasks. *Amino Acids.* 2012 Sep;43(3):1331-7.
6. Wang R, Yan H, Tang XC. Progress in studies of huperzine A, a natural cholinesterase inhibitor from Chinese herbal medicine. *Acta Pharmacol Sin.* 2006 Jan;27(1):1-26. [PMID: 16364207].

† These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.