

CERENITY®



CLINICAL APPLICATIONS

- Supports a State of Calmness and Relaxation
- Increases Serotonin and GABA Production in the Brain
- Addresses Neurotransmitter Signaling Systems
- Supports Occasional Sleeplessness

ENDOCRINE HEALTH

Cerensity® is a comprehensive formula designed to address daily stress by increasing the production of the calming neurotransmitters serotonin and gamma-amino butyric acid (GABA). Cerensity® also includes key ingredients that quickly increase the production of alpha brain waves resulting in a relaxed and effortless state of alertness.

Overview

Neurotransmitters are the chemical messengers that regulate mood, memory, sleep cycle and daily stress. Adequate neurotransmitter production depends on an adequate supply of amino acids, vitamins and minerals in the diet. High levels of stress, dietary deficiencies, genetics, medications and toxins all play a role in neurotransmitter depletion. The nutrients in Cerensity® support healthy levels of serotonin and GABA, the brain's primary neurotransmitters for balancing the stress response.

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 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

PharmaGABA™†

Gamma-amino butyric acid (GABA) is one of the major inhibitory neurotransmitters in the brain. GABA provides a calming effect and is a primary component of the body's stress fighting mechanisms. GABA is also available as a dietary supplement. Most commercially available forms of GABA utilize synthetically produced GABA, manufactured from pyrrolidone, a compound not allowed for use in Japan. Cerensity® includes a patented, naturally sourced, non-synthetic form of GABA called PharmaGABA™. It is produced naturally by the friendly bacteria, *Lactobacillus hilgardii*. In contrast to synthetic GABA sources, PharmaGABA™ 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 PharmaGABA™ was administered. PharmaGABA™ 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.

Inositol†

Inositol is a B vitamin that is an important component of cell membrane signaling. As part of the cellular signaling system of

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EFFICACY
the power of *e*

the CNS, inositol is crucial for the release of neurotransmitters from within the nerve cells. A deficiency of inositol can affect brain signaling, resulting in inadequate neurotransmitter release causing irritability, worry and restlessness.⁵

Taurine†

Taurine is an amino acid that is found abundantly in the brain and has neuroprotective properties.⁶ Taurine promotes inhibitory neurotransmission due to its ability to activate GABA receptors.⁶ Taurine also supports inhibitory neurotransmission by activating glycine receptors in the brain.⁷

5-HTP†

5-hydroxytryptophan (5-HTP) is an amino acid intermediate that is directly converted into the mood-regulating neurotransmitter serotonin. Maintaining a healthy serotonin level is important for regulating appetite and sleep cycle and for supporting a sense of calmness.⁹ As a dietary supplement, 5-HTP is produced naturally from the seeds of the African plant, *Griffonia simplicifolia*. In contrast to L-tryptophan, 5-HTP provides efficient conversion into serotonin because it does not need prior conversion by tryptophan hydroxylase.⁸

Micronutrients†

Cerenity® includes essential nutrients that are required for the synthesis of serotonin and GABA neurotransmitters. This includes 5-methyltetrahydrofolate (5-MTHF), vitamin B₆ (P-5-P), vitamin C, zinc and magnesium.¹⁰ 5-MTHF is the biologically active form of the B vitamin folic acid, which is vital for supporting proper mood regulation.¹¹ 5-MTHF works together with B₁₂ as a methyl group donor. Methyl (CH₃) group donation is important for maintaining neurotransmitter synthesis. Magnesium is a mineral that calms the nervous system by binding to glutamate receptors, which reduces excitatory neurotransmitter activity.¹² The combination of the minerals zinc and magnesium helps reduce glutamate to non-toxic levels, providing significant neuroprotection.¹²

Directions

3 capsules taken 1-3 times per day or as recommended by your health care professional.

Does Not Contain

Wheat, gluten, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners or preservatives.

Cautions

If you are pregnant, nursing or taking any medications for depression or anxiety, consult your health care provider before taking this product.

Supplement Facts ^{v1}		
Serving Size 3 Capsules Servings Per Container 30		
3 capsules contain	Amount Per Serving	% Daily Value
Vitamin C (as Ascorbic Acid USP)	50 mg	56%
Niacin (as Niacinamide USP)	10 mg	63%
Vitamin B6 (as Pyridoxal 5'-Phosphate)	10 mg	588%
Folate (from 400 mcg as Quatrefolic® (6S)-5-Methyltetrahydrofolic acid glucosamine salt)	680 mcg DFE	170%
Vitamin B12 (as Methylcobalamin)	200 mcg	8,333%
Magnesium (as DiMagnesium Malate)	75 mg	18%
Zinc (as TRAACS® Zinc Bisglycinate Chelate)	5 mg	45%
Inositol NF	1 g	*
Taurine USP	300 mg	*
L-Theanine (Suntheanine®)	100 mg	*
Gamma Aminobutyric Acid (PharmaGABA™)	100 mg	*
5-HTP (5-Hydroxytryptophan) (from <i>Griffonia simplicifolia</i> (Seed))	75 mg	*

* Daily Value not established

ID# 831090 90 Capsules



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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. Colodny L, Hoffman RL. Inositol- Clinical Applications for Exogenous Use. *Altern Med Review* 1998; 3(6):432-447.
6. Albrecht J, Zielinska M. The role of inhibitory amino acidergic neurotransmission in hepatic encephalopathy: a critical overview. *Metab Brain Dis*; 2002 Dec; 17(4): 283:294.
7. Jia F, Yue M, Chandra S, Keramidis A, Goldstein PA, Homanics GE, Harrison NL. Taurine is a potent activator of extrasynaptic GABA(A) receptors in the thalamus. *J Neurosci*; 2008 28(1):106-115.
8. O'Neil MF, Moore NA. Animal models of depression: are there any? *Human Psychopharmacology* 2003;18:239-254.
9. Birdsall TC. 5-Hydroxytryptophan: a clinically-effective serotonin precursor. *Altern Med Review* 1998;(3)4:271-1998.
10. Kaplan, Bonnie J, Crawford, et al. Vitamin, minerals, and mood. *Psychological Bulletin* 2007; Vol 133(5):747-760.
11. Miller AL. The methylation, neurotransmitter, and antioxidant connections between folate and depression. *Altern Med Review* 2008;13(3):216-226.
12. Prior PL, Galduroz JC. Glutaminergic hyperfunctioning during alcohol withdrawal syndrome: therapeutic perspective with zinc and magnesium. *Med Hypothesis* 2011 77(3):368-70.