



L-Theanine

CLINICAL APPLICATIONS

- Promotes Relaxation Without Causing Drowsiness
- Improves Focus, Attention, Learning Performance and Mental Clarity
- Improves Quality of Sleep
- May Support Blood Pressure Already Within the Normal Range
- Reduces Negative Side Effects of Caffeine



L-theanine is a naturally occurring, unique amino acid found in tea leaves. L-theanine has been shown to reduce stress and promote relaxation without causing drowsiness. It alleviates nervousness due to overwork and decreases irritability by contributing to a variety of changes in the brain. Human studies suggest it is also helpful in improving focus, attention and mental clarity while reducing the negative side effects of caffeine.

Overview

For centuries, green tea has been revered for its ability to boost brain function and promote a relaxed yet alert state. Modern research has revealed this widely consumed beverage contains large amounts of L-theanine, which has specific and positive effects on the brain and nervous system.

Brain and Nervous System Support

Human studies have shown there is a significant increase in alpha brain waves within 40 minutes of ingesting L-theanine. Alpha brain waves are associated with a state of wakeful relaxation as well as focus and creativity.¹ An eight-week, double-blind study found that 400 mg of L-theanine per day was safe and effective while also possessing neuroprotective, mood-enhancing and relaxation properties.² Another double-blind study showed L-theanine lowered heart rate, improved salivary IgA levels and reduced sympathetic nervous system activation, demonstrating its ability to support a healthy stress response.³

The stress-buffering mechanisms of L-theanine have been connected to its ability to increase serotonin and dopamine production in the brain. Research conducted on animal models suggests that L-theanine supports overall nervous system health and activity due to its positive effects on serotonin, dopamine and GABA levels as well as its modulation of excitatory and inhibitory neurotransmission.^{4,5} Studies have shown L-theanine crosses the blood-brain barrier intact and can continue to balance neurochemistry by blocking glutamate transport, reducing levels

of extracellular glutamate and supporting the release of dopamine and glycine from neurons.⁴⁻⁶

Liver Health, Detoxification, Antioxidant Status and Cardiovascular Support

Research designed to study ethanol metabolism and hepatic toxicity in animals suggests L-theanine increases specific liver enzyme activity that reduces blood ethanol concentration within one hour of ingestion compared to controls. It is also assumed L-theanine's effects on cytochrome P450 2E1 activity, glutathione recycling and antioxidant mechanisms enhance detoxification and preserve healthy liver function.⁷⁻⁹ L-theanine has also been shown to significantly impede hydrogen peroxide-induced cell death and therefore may play an important role in supporting liver health.¹⁰ Further studies demonstrate L-theanine, along with green tea polyphenols, provides substantial antioxidant activity, which supports healthy LDL and oxidation levels and may subsequently benefit cardiovascular health.^{11,12} Animal and human research also suggests L-theanine supports healthy blood pressure already within the normal range due to its ability to diminish the negative side effects of caffeine.¹³

Directions

1 capsule, 1 to 2 times per day or as recommended by your health care professional.

Does Not Contain

Gluten, corn, yeast, artificial colors and flavors.

Cautions

If you are pregnant or nursing, consult your health care professional before taking this product.



Supplement Facts^{v1}

Serving Size 1 Capsule
Servings Per Container 60

	Amount Per Serving	% Daily Value
L-Theanine (Suntheanine®)	200 mg	*

* Daily Value not established.

References

1. Juneja LR, Chu D-C, Okubo T, et al. L-theanine – a unique amino acid of green tea and its relaxation effect in humans. *Trends Food Sci Technol*. 1999;10:199-204. [http://dx.doi.org/10.1016/S0924-2244\(99\)00044-8](http://dx.doi.org/10.1016/S0924-2244(99)00044-8).
2. Ritsner MS, Miodownik C, Ratner Y, et al. L-theanine relieves positive, activation, and anxiety symptoms in patients with schizophrenia and schizoaffective disorder: an 8-week, randomized, double-blind, placebo-controlled, 2-center study. *J Clin Psychiatry*. 2011 Jan;72(1):34-42. [PMID: 21208586]
3. Kimura K, Ozeki M, Juneja LR, Ohira H. L-Theanine reduces psychological and physiological stress responses. *Biol Psychol*. 2007 Jan;74(1):39-45. [PMID:16930802]
4. Yokogoshi H, Kobayashi M, Mochizuki M, et al. Effect of theanine, r-glutamylethylamide, on brain monoamines and striatal dopamine release in conscious rats. *Neurochem Res*. 1998 May;23(5):667-73. [PMID: 9566605]
5. Nathan PJ, Lu K, Gray M, et al. The neuropharmacology of L-theanine (N-ethyl-L-glutamine): a possible neuroprotective and cognitive enhancing agent. *J Herb Pharmacother*. 2006;6(2):21-30. Review. [PMID: 17182482]
6. Yamada T, Terashima T, Okubo T, et al. Effects of theanine, r-glutamylethylamide, on neurotransmitter release and its relationship with glutamic acid neurotransmission. *Nutr Neurosci*. 2005 Aug;8(4):219-26. [PMID: 16493792]
7. Sadzuka Y, Inoue C, Hirooka S, et al. Effects of theanine on alcohol metabolism and hepatic toxicity. *Biol Pharm Bull*. 2005 Sep;28(9):1702-6. [PMID:16141543]
8. Li G, Ye Y, Kang J, et al. L-Theanine prevents alcoholic liver injury through enhancing the antioxidant capability of hepatocytes. *Food Chem Toxicol*. 2012 Feb;50(2):363-72. [PMID: 22019691]
9. Sugiyama T, Sadzuka Y. Theanine, a specific glutamate derivative in green tea, reduces the adverse reactions of doxorubicin by changing the glutathione level. *Cancer Lett*. 2004 Aug 30;212(2):177-84. [PMID: 15279898]
10. Li G, Kang J, Yao X, et al. The component of green tea, L-theanine protects human hepatic L02 cells from hydrogen peroxide-induced apoptosis. *European Food Research and Technology*. 2011;233(3):427-35. <https://doi.org/10.1007/s00217-011-1534-5>.
11. Yokozawa T, Dong E. Influence of green tea and its three major components upon low-density lipoprotein oxidation. *Exp Toxicol Pathol*. 1997 Dec;49(5):329-35. [PMID: 9455677]
12. Dufresne CJ, Farnworth ER. A review of latest research findings on the health promotion properties of tea. *J Nutr Biochem*. 2001 Jul;12(7):404-421. [PMID: 11448616]
13. Rogers PJ, Smith JE, Heatherley SV, et al. Time for tea: mood, blood pressure and cognitive performance effects of caffeine and theanine administered alone and together. *Psychopharmacology (Berl)*. 2008 Jan;195(4):569-77. [PMID: 17891480]

