

## L-THEANINE

- · 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.<sup>4,5</sup> 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.<sup>4-6</sup>

### 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.<sup>7-9</sup> 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.<sup>10</sup> 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.<sup>11,12</sup> 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 Serving Size 1 Capsule Servings Per Container 60 Amount Per % Daily Serving Value L-Theanine (Suntheanine®) 200 mg \* \* Daily Value not established.

#### References

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