

L-Theanine

2-Amino-4- (ethylcarbamoyl) Butyric Acid | 5-N-ethylglutamine | Gamma-glutamylethylamide | N-Ethyl-L-Glutamine | Teanina

Introduction

Discovered by Japanese scientists in 1949, L-theanine is an amino acid that neither meets the criteria of essential nor non-essential. In fact, theanine is found almost exclusively in green tea (*Camellia sinensis*, *Camellia japonica*, and *Camellia sasanqua*), and certain species of mushrooms like *Boletus badius* (1). Typically extracted from green tea leaves, L-theanine is best known for its ability to promote “wakeful relaxation”. Such relaxation without sedation allows theanine to act synergistically with caffeine.

L-Theanine Mechanisms & Benefits

L-theanine not only provides a relaxing focus but has also been shown to reduce anxiety. It does so by up-regulating major neurotransmitters in your brain such as GABA, dopamine, and serotonin (2). GABA (gamma-aminobutyric acid) is considered the major inhibitory neurotransmitter; as it reduces neural excitation. This helps to keep the brain from “racing” too much. L-Theanine crosses the blood–brain barrier and is taken by cells via sodium-coupled active transport (3).

Endocrinological effects

Aside from its involvement in motor control & cognitive function; dopamine is a primary driver of the reward system in the brain and is released when we experience pleasure. Dopamine and serotonin are responsible for that “happy feeling” we get with L-theanine supplementation (3). Serotonin positively impacts our mood, and feelings of well-being. Being a structural analog of glutamate, the major excitatory neurotransmitter, theanine also reduces the effects of glutamate (3, 4). Playing on the side of GABA rather than glutamate in the balance of equilibrium in neurotransmission, is the major mechanism by which theanine prevents excessive neural excitability. Hence, theanine allows our brain to cruise smoothly throughout the day with a pleasant accent of relaxation and happiness. Not to mention that when taken at night, theanine may improve sleep quality & promote deeper sleep. Wait, so won't L-theanine make me tired during the day? Actually, it shouldn't, since L-theanine supports improved sleep quality not by sedation, but rather by reducing anxiety (5). Hence, L-theanine can help you to feel great during the day, and to sleep great at night.

L-Theanine + Caffeine

When combined with caffeine, L-theanine improves attention and cognitive executive function (7), while reducing the jitters and rise in blood pressure that are associated with caffeine intake (6). What's more, L-Theanine is known to reduce the overexcitability caused by caffeine without impairing caffeine's stimulatory effect. This stellar combo provides you with a smooth, relaxed sense of focus.

Dosage:

L-theanine tends to be taken in doses of 100-200 mg, especially when combined with caffeine (8). Many sources recommend L-theanine and caffeine to be taken in a 2:1 ratio respectively, for improving performance on cognitively demanding tasks (9). That being said, reports on dosage are mixed, with many subjective accounts regarding higher doses of caffeine with L-theanine as more effective for improving alertness and focus. Our rigorous testing process of L-theanine combined with caffeine showed the best results when combining pure caffeine with L-theanine at around a 3.25:1 ratio respectively, while combining them with other mood and energy-boosting ingredients. This ratio was effective to provide that uplifting feel and sense of focus we were looking for. When taking L-theanine with a superior form of caffeine, such as dicationic caffeine or pterostilbene caffeine, it must be kept in mind what percentage of the compound is made up of pure caffeine alone. As included in our SUPER U formula; dicationic caffeine contains 75% caffeine and 25% malic acid. A 433 mg dosage of dicationic caffeine yields 324.75 mg of caffeine.

Hence, we opted for 433 mg of dicationic caffeine and 100 mg of L-theanine in SUPER U to maintain our test-approved dosage ratio and achieve our desired result. Additionally, we chose to go with a lower dosage of L-theanine since the formula contains a few other ingredients that support mood, and we didn't want too much of a sedative effect. L-theanine plasma concentration has been shown to peak between 32 and 50 min following oral ingestion, and its half-life generally ranges from 58 min to 74 min (10). Hence, L-theanine concentration generally peaks ~ 41 minutes and stays in your system ~ 132 minutes.

Our sourcing

At Wend Wellness we use only fully natural ingredients in all our products. Our sourcing of L-theanine is no different, as we provide you with a non-GMO, gluten free, and pure form of the amino acid. All of our products are third party tested for purity, and all Wend Wellness products are held to the highest standard of quality and efficacy.

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

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