L-Theanine: The Relaxation Amino Acid
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For over a hundred years people have been drinking green tea for good health and relaxation. The occurrence of L-Theanine in tea leaves was discovered in 1949. Japanese chemists established that it is a derivative of glutamic acid, which is one of the neurotransmitters in the brain. Theanine is a major constituent amino acid of the tea leaves that has a positive effect on the brain and central nervous system.

Green tea has been a widely consumed beverage since it was brought to Japan from China. Recently the relaxation effect and other benefits have been scientifically evaluated and documented. The positive benefits of green tea have been recorded not only in Japan but also all over the world. The main effective components within green tea are polyphenols, which have many physiological effects on the brain and immune system.

Researchers established theanine has a major role in the formation of gamma amino butyric acid (GABA). GABA, the anxiety amino acid, is a major inhibitory neurotransmitter and key for stress reduction and relaxation. L-Theanine works by inhibiting the release of dopamine and serotonin. In addition, L-Theanine demonstrates the potential to lower blood pressure and to relax tension-filled muscles. The relaxant effect is usually felt within twenty to twenty-five minutes. If the capsule is opened and mixed with water or juice effects are felt within fifteen minutes.

Taixo International, Inc., Edina, MN, offers Theanine under the name Suntheanine. A dose of 50 to 200 milligrams has been shown effective for stress, anxiety and tension. The benefits of Theanine are caffeine nerves, PMS, increased focus and concentration, reducing tension and muscle pain, and modulating moods.

A trial group of 20 women patients took 200 milligrams of Theanine daily for three menstrual cycles all showed positive results at the end of the three-month trial. Overall, all twenty reported a much lower incidence of PMS-related symptoms.

Clinical studies were performed using Theanine on a group of 50 women ages 18 to 22. Brain waves are classified as “d, q, a, and b” waves according to the frequency of each brain wave. Each brain wave is related to a person's specific mental condition. The “d, q, a, and b” waves are recorded during states of sleep, meditation, napping, relaxing, music and excitement respectively. The women were divided into two groups, those with high anxiety and those with low anxiety. The Manifest Anxiety Scale (MAS) monitored the perimeters. In this test each person was asked to answer 65 questions. Levels of anxiety were classified into five different grades that reflect mental and body conditions. Those women who had the highest anxiety were classified as grade 1. The clinical test was conducted with 4 very high anxiety females and 4 very low females according to the Manifest Anxiety Scale results. The tests were done in a controlled setting that included a specific amount of light, sound and temperature. A special chair was placed in the room to measure brain waves. Each person was given 50 milligrams or 200 milligrams of Theanine and allowed to sit quietly and adjust to the room. Brain waves were measured for sixty minutes. The second and third week the amount of Theanine and water was given at the same time every day weekly. The test was repeated two times for a total of six weeks.

The results were conclusive. The “q” or alpha waves increased markedly in those who took 200 milligrams of Theanine. Individuals in the high anxiety group reported a relaxation response with warmth on their fingertips and toe tips. Oral intake of 200 milligrams of Theanine (Suntheanine) induced a feeling of relaxation and less anxiety. The EEG changed to alpha waves in the orbital and parietal part of the brain. Alpha waves are achieved with deep meditation.

Although Theanine creates a feeling of relaxation and lowers stress and anxiety, it does
not shut down the brain. By shutting down the stress and anxiety messages, Theanine appears to increase focus and concentration. Theanine can increase levels of dopamine, a brain chemical that has mood-enhancing effects. Theanine readily crosses the blood brain barrier and changes the brain chemistry in the same way as a deep meditative state.

Clinical studies of neurons in all cell culture demonstrate Theanine can significantly reverse glutamate-induced toxicity. Glutamate-induced neurotoxicity is a major cause of degenerative brain disease. Because of Theanine’s effect on the brain and musculo-skeletal system, Theanine has been shown to lower blood pressure and reduce the risk of a stroke.

Theanine decreases the oxidative stress caused by illness or environmental toxins. Theanine appears to have modest antioxidant activity, and thus may explain in part Theanine’s ability to ameliorate some of the side effects of chemotherapeutic agents.

Theanine is absorbed from the small intestine and as mentioned before, does cross the blood brain barrier. Theanine has no cautions or drug interactions. Theanine may enhance the anti-tumor effects of chemotherapy drugs. If you are receiving chemotherapy agents, consult with your physician.

Theanine is 99.7% pure pharmaceutical grade and is not affected by food so it can be taken anytime. Theanine can be taken in conjunction with other amino acids such as Balanced Neurotransmitter Complex (B.N.C.), Brain Link, Anxiety Control, Mood Sync, Teen Link, and Pain Control.

There is intensive research now to establish numerous other ways that Theanine can be of benefit in our stress-filled society.

References:

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