# 200 mg of Zen



Natural Support for Awake Calmness (Hypoallergenic)

Item # 74700 60 Vegetarian Capsules

## The Possible Benefits of 200 mg of Zen, a Food Supplement

- May help support healthy emotional status
- May support a feeling of general relaxation without sedation
- May promote healthy moods during times of hormonal change

### Description

**200 mg of Zen** contains a significant quantity of both gamma-aminobutyric acid (GABA) and theanine (glutamic acid gamma-ethylamide), an amino acid derivative found naturally in green tea (Camellia sinensis). These two dietary supplement ingredients may together support healthy moods and a feeling of alert relaxation.

Research has shown that dietary components can modulate the body's levels of neurotransmitters, e.g. serotonin, dopamine, norepinephrine, and GABA. Alterations in the levels of these neurotransmitters, perhaps induced by metabolic stress or vitamin deficiencies, e.g. vitamin B6, can significantly influence mood and emotional status, as well as motor function.

GABA is the major inhibitory neurotransmitter in the brain and is active at 20% of central nervous system (CNS) synapses. GABA, via its neuronal A receptor, inhibits neurons by causing an influx of chloride ions. This chloride influx initiated by GABA is known to be part of the bodily mechanisms involved with mood, muscle relaxation and sedation. A decrease in GABA's function as an inhibitory mediator or a dysregulated sensitivity of GABA receptors can lead to excessive neuronal activity. Theanine, an amino acid derivative found naturally in green tea (Camellia sinensis), is also recognised to have calming properties. Human studies have demonstrated that dietary theanine supplementation increases alpha wave activity, fostering a state of alert relaxation. Animal studies have also shown that administration of theanine regulates brain serotonin concentration by affecting either serotonin synthesis or degradation in the brain. It has been hypothesised that serotonin facilitates general and conditioned anxiety at the level of medial temporal lobe structures.

The calming effect of this tea component may seem contradictory to the stimulatory properties of green tea's caffeine content, however research suggests that theanine exerts an antagonistic effect on caffeine's stimulatory action. Although theanine is a component of green tea, **200 mg of Zen** does not contain caffeine. Contains Suntheanine®, pure L-theanine from Taiyo International, Inc. Serving size: 2 Capsules Servings per container: 30

#### Amount per serving:

GABA (Gamma-A L-Theanine	minobutyric acid)	500 mg 200 mg
Other ingredients:	Hydroxypropyl methylcellulose, cellulose, L-leucine, silicon dioxide.	
Suggested Use:	As a dietary supplement, 1 or 2 capsules daily between meals, or as directed by a healthcare practitioner.	
Warning:	Contraindicated with drugs or use only under the supervision of a healthcare practitioner.	

#### References

Anderson IM, Mortimore C. Adv Exp Med Biol Paz A, Berry EM. Ann Nutr Metab 1997;41:291-8. 1999;467:43-55. Petty F, Trivedi MH, Fulton M, et al. Biol Psychiatry Benton D, Donohoe RT. Public Health Nutr 1999;2:403-1995;38:578-91. Prasad C. Braz J Med Biol Res 1998;31:1517-27. Eghbali M, Curmi JP, Birnir B, et al. Nature Sadzuka Y, Sugiyama T, Sonobe T. Toxicol Lett 1997;388:71-5. 2000;114:155-62. Goddard AW, Mason GF, Almai A, et al. Arch Gen Shiah IS, Yatham LN. Life Sci 1998;63:1289-303. Psychiatry 2001;58:556-61. Sugiyama T, Sadzuka Y. Cancer Lett 1998;133:19-26. He P, Wada S, Watanabe N, et al. J of Food Sci, Sugiyama T, Sadzuka Y, Tanaka K, et al. Toxicol Lett 2000;65:30-33. 2001;121:89-96. Juneja L, Chu D, Okuba T. Trends Food Sci Tech Sundstrom I, Ashbrook D, Backstrom T. 1999;10:199-204. Psychoneuroendocrinology 1997;22:25-38. Unno T, Suzuki Y, Kakuda T, et al. J Agric Food Chem Kakuda T, Nozawa A, Unno T, et al. Biosci Biotechnol Biochem 2000;64:287-93. 1999;47:1593-6. Kakuda T, Yanase H, Utsunomiya K, et al. Neurosci Lett Verger P, Lagarde D, Batejat D, et al. Physiol Behav 2000;289:189-92. 1998;64:317-22. Kimura R, et al. Chem Pharm Bull (Tokyo) Vescovi PP, Volpi R, Coiro V. Alcohol 1998;16:325-8. Wells AS, Read NW, Laugharne JD, et al. Br J Nutr 1986;34:3053-7. Lombard CB. Med J Aust 2000;173 Suppl:S104-5. 1998:79:23-30. Markus CR, Panhuysen G, Tuiten A, et al. Appetite Yokogoshi H, Kato Y, et al. Biosci Biotechnol Biochem 1998;31:49-65. 1995;59:615-8. Moore P, Gillin C, et al. Arch Gen Psychiatry Yokogoshi H, Kobayashi M. Life Sci 1998;62:1065-8. 1998;55:534-9. Yokogoshi H, Mochizuki M, Saitoh K. Biosci Biotechnol Paul SM, Marangos PJ, Skolnick P, et al. Encephale Biochem 1998;62:816. 1982;8:131-44.



Nutri-Link Ltd 24 Milber Trading Estate Newton Abbot, TQ12 4SG Phone: 08450 760 402 Fax: 08450 760 403 www.nutri-linkltd.co.uk