

L-Tyrosine

Code: FE1020 – 60 vegetable capsules



L-Tyrosine is a food supplement based on L-tyrosine which provides 500 mg per capsule in its free, natural form.

Ingredients: L-Tyrosine, bulking agent (microcrystalline cellulose), anticaking agents (silicon dioxide and magnesium salts of fatty acids), vegetable capsule (glazing agent: hydroxypropylmethylcellulose; purified water).

Nutritional information:

**1 capsule
(1 436 mg)**

L-Tyrosine

500 mg

Size and format:

60 vegetable capsules

Recommended daily dose:

1–2 capsules daily with meals.

Do not exceed the stated recommended daily dose.

Indications and uses:

- To reduce or protect against stress, depression, anxiety, irritability, chronic fatigue and to improve concentration.
- Helps regulate thyroid function.
- It is helpful for people suffering from withdrawal symptoms from addictive substances such as drugs, alcohol and tobacco.

Cautions:

Do not use this product if you are pregnant or breastfeeding. Consult your health care professional before taking this product if you are on medication (dopamine, thyroid hormone therapy, contraceptives) or have special medical conditions (hyperthyroidism, Graves' disease).

L-tyrosine should not be administered in cases of melanoma.

L-tyrosine is not recommended for people taking monoamine oxidase or tricyclic antidepressants and they should also limit their intake of foods rich in this amino acid, as blood pressure may rise suddenly.

DETAILS:

L-Tyrosine belongs to the group of non-essential amino acids as the body synthesises it from the amino acid phenylalanine. It is important for the structure of almost all proteins in the body.

Because of its role as a precursor of noradrenaline and epinephrine (two of the main stress-related hormones), tyrosine can also alleviate the adverse effects of environmental, psychosocial and physical stress, as well as regulate mood swings. Tyrosine deficiency leads to a deficiency of norepinephrine in the brain, which can result in depression. In addition to improving mood, tyrosine also acts as a brain stimulant and antidepressant.

It is involved in melanin production and in the functions of the adrenal, thyroid and pituitary glands.

The amino acid tyrosine is a direct precursor of the hormone thyroxine, hence the association of low plasma tyrosine levels with hypothyroidism.

Symptoms of tyrosine deficiency include low blood pressure and body temperature.

Vitamin B6, folic acid, and copper are necessary for the conversion of tyrosine into neurotransmitters.

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L-TYROSINE: due to its affect on neurotransmitters, it may improve cognitive function, including Parkinson's disease and other mood disorders. Preliminary findings indicate a beneficial effect of tyrosine, together with other amino acids, in people affected by dementia, including Alzheimer's disease ⁽¹⁻⁸⁾.

Clinical studies using tyrosine for depression indicate that tyrosine supplementation offers a promising alternative to the prescription of antidepressants ⁽⁹⁻¹²⁾.

Tyrosine is a direct precursor of the primary thyroid hormone thyroxine, as well as adrenaline and noradrenaline. Thyroxine increases metabolic rate and controls growth rate. Tyrosine is an amino acid necessary in the production of neurotransmitters (epinephrine, norepinephrine, dopa and dopamine). Tyrosine also appears to have a mild stimulatory effect on the central nervous system. Patients with thyroxine deficiency have symptoms such as excessive weight gain, cold hands and feet and decreased basal metabolism. Tyrosine has been found to help optimise thyroid hormone levels ⁽¹³⁻¹⁴⁾.

Combined with tryptophan, it is used to reduce withdrawal symptoms in drug, alcohol and tobacco abuse.

Skin cells convert tyrosine into melanin, the dark pigment that protects against the harmful effects of ultraviolet light ⁽¹⁵⁻¹⁶⁾.

References:

- 1) Growdon, John H., et al. "Effects of oral L-tyrosine administration on CSF tyrosine and homovanillic acid levels in patients with Parkinson's disease." *Life Sci* 30.10 (1982): 827-32.
- 2) Lemoine, P., et al. "L-tyrosine: a long term treatment of Parkinson's disease." *Comptes rendus de l'Academie des sciences. Serie III, Sciences de la vie* 309.2 (1989): 43-47.
- 3) Steenbergen, Laura, et al. "Tyrosine promotes cognitive flexibility: evidence from proactive vs. reactive control during task switching performance." *Neuropsychologia* 69 (2015): 50-55.
- 4) Colzato, Lorenza S., et al. "Eating to stop: tyrosine supplementation enhances inhibitory control but not response execution." *Neuropsychologia* 62 (2014): 398-402.
- 5) Colzato, Lorenza S., Annelies M. de Haan, and Bernhard Hommel. "Food for creativity: Tyrosine promotes deep thinking." *Psychological research* 79.5 (2015): 709-714.
- 6) Colzato, Lorenza, et al. "Working memory reloaded: tyrosine repletes updating in the N-back task." *Frontiers in behavioral neuroscience* 7 (2013): 200.
- 7) Deijen, J. B., et al. "Tyrosine improves cognitive performance and reduces blood pressure in cadets after one week of a combat training course." *Brain research bulletin* 48.2 (1999): 203-209.
- 8) Banderet, Louis E., and Harris R. Lieberman. "Treatment with tyrosine, a neurotransmitter precursor, reduces environmental stress in humans." *Brain research bulletin* 22.4 (1989): 759-762.
- 9) Jongkees, Bryant J., et al. "Effect of tyrosine supplementation on clinical and healthy populations under stress or cognitive demands—A review." *Journal of psychiatric research* 70 (2015): 50-57.
- 10) Israely, Mor, et al. "A Double Blind, Randomized Cross-Over Trial of Tyrosine Treatment on Cognitive Function and Psychological Parameters in Severe Hospitalized Anorexia Nervosa Patients." *The Israel journal of psychiatry and related sciences* 54.3 (2017): 52-58.
- 11) Colzato, Lorenza S. "Tyrosine." *Theory-Driven Approaches to Cognitive Enhancement*. Springer, Cham, 2017. 5-15.
- 12) Gibson, Candace J., and Alan J. Gelenberg. "Tyrosine for the treatment of depression." *Advances in Biological Psychiatry* (1983).
- 13) Curley, Patricia A. "Dietary and lifestyle interventions to support functional hypothyroidism." *Inquiries Journal* 1.12 (2009).
- 14) Garber, Jeffrey R., et al. "Clinical practice guidelines for hypothyroidism in adults: cosponsored by the American Association of Clinical Endocrinologists and the American Thyroid Association." *Thyroid* 22.12 (2012): 1200-1235.
- 15) Slominski, Andrzej, Michal A. Zmijewski, and John Pawelek. "L-tyrosine and L-dihydroxyphenylalanine as hormone-like regulators of melanocyte functions." *Pigment cell & melanoma research* 25.1 (2012): 14-27.
- 16) Schwahn, Denise J., et al. "Tyrosine Levels Regulate the Melanogenic Response to α -Melanocyte-Stimulating Hormone in Human Melanocytes: Implications for Pigmentation and Proliferation." *Pigment Cell Research* 14.1 (2001): 32-39.