

SUPER Folate



Clinical Applications

- Support Healthy Biosynthesis of Serotonin
- Support Healthy Mood and Positive Outlook
- Support Normal Appetite
- Support Restful Sleep Pattern

The active ingredient in Super Folate is sourced from the seed of the Griffonia simplicifolia, an African shrub, and delivered in a tablet designed to naturally increase the body's level of serotonin quickly and steadily over a 12-hour period. The raw material is rigorously tested and each batch is documented free of "Peak X". Regular use of 5-HTP has been shown to support a positive outlook and normal appetite.

All NutriMedical Formulas Meet or Exceed cGMP quality Standards

Discussion

5-HTP is a precursor to serotonin. In the body, the essential amino acid, tryptophan when acted upon by the enzyme, tryptophan hydroxylase converts to 5-hydroxytryptophan (5-HTP). The compound is subsequently decarboxylated to serotonin (5-HT), thereby elevating extracellular serum serotonin levels.^[1] Supplementing with 5-HTP bypasses the somewhat limiting conversion of 5-HTP to 5-HT.

Oral 5-HTP is well-absorbed in the intestine without the need for a transporter; other amino acids do not compete with it for absorption. It easily crosses the blood-brain barrier^[3], is not degraded by the enzymes that degrade tryptophan,^[4] and it is excreted through the kidneys. The 12-hour controlled-released delivery of Super Folate affords convenience of dosing. There is an immediate release to boost blood levels, followed by a delayed release to steadily maintain levels. The controlled-release formulation also reduces the likelihood of common G.I. side effects.

Serotonin regulates many normal brain activities, increases norepinephrine and dopamine, and is important in regulating mood and behavior. Whereas adequate levels instill a sense of calmness and relaxation; low levels are associated with anxiety, irritability, sleep disturbance and poor mood.

Several studies have demonstrated the effectiveness of 5-HTP supplementation to reduce anxiety, pain, stiffness, fatigue and insomnia in individuals with fibromyalgia.^[5,6] Used in a high dose, (i.e. 300 mg, three times a day) in obese subjects, this serotonin precursor decreased food consumption and reduced weight; however nausea at this relatively high dose was a common complaint.^[7,8] Published studies (dose approx. 100-600 mg/day) have also demonstrated the effectiveness of 5-HTP supplementation upon frequency and duration of headache, including migraine, especially with migraine with aura.^[9,10]

The pharmacologic activity of 5-HTP may be related to the effect it has upon the HPA axis, as it has the ability to raise plasma cortisol levels, to cause transient increase in growth hormone (at 150 mg dose) and in men only, to increase thyroid stimulating hormone.^[11,12] Serotonin is also converted to melatonin; thus supplementation has similar effects. Improvement in sleep quality is likely related to 5-HTP's ability to increase the length of rapid eye movement (REM).^[13]

The raw materials for Super Folate undergo rigorous analysis for heavy metals and microbes. Each batch undergoes an FDA-provided procedure to assure the absence of "Peak X", the impurity known to be the cause of Eosinophilia Myalgia Syndrome ("EMS") that led to the banning of L-Tryptophan supplements in the late 80's.

NutriMedical
"Empowering Nutrition and Medicine Together"

SUPER Folate



Supplement Facts

Serving Size: 1 Tablet
Servings Per Container: 60

Amount Per Serving %Daily Value		
5-HTP (5-Hydroxytryptophan) (derived from <i>Griffonia simplicifolia</i> (seed))	100 mg	**

** Daily Value not established.

Other Ingredients: Cellulose, dibasic calcium phosphate, hypromellose, silica, stearic acid, magnesium stearate, methylcellulose and glycerin.

Dosing:

Take one tablet up to two times a day with a meal. Do not exceed recommended dose. 5 HTP should be used under supervision.

References

1. Zhang X, et al. Tryptophan Hydroxylase-2 Controls Brain Serotonin Synthesis. *Science*. 2004; 305: 217 [PMID: 15247473]
2. Magnussen I, Nielsen-Kudsk F. Bioavailability and related pharmacokinetics in man of orally administered L-5-hydroxytryptophan in steady state. *Acta pharmacologica et toxicologica*. 1980; 46(4): 257-62 [PMID: 6966118]
3. Agren H, Reibring L, Hartvig P, et al. Low brain uptake of L-[11C]5-hydroxytryptophan in major depression: a positron emission tomography study on patients and healthy volunteers. *Acta psychiatrica Scandinavica. (Acta Psychiatr Scand)* 1991; 83(6): 449-55
4. Zmilacher K, Battagay R, Gastpar M. L-5-Hydroxytryptophan Alone and in Combination with a Peripheral Decarboxylase Inhibitor in the Treatment of Depression. *Neuropsychobiology*. 1988; 20: 28-35
5. Caruso I, Sarzi Puttini P, Cazzola M, et al. Double-blind study of 5-hydroxytryptophan versus placebo in the treatment of primary fibromyalgia syndrome. *J Int Med Res* 1990; 18(3): 201-9
6. Puttini PS, Caruso I. Primary fibromyalgia syndrome and 5-hydroxy-L-tryptophan: a 90-day open study. *J Int Med Res*.1992; 20:182- 189 FIBRO
7. Cangiano C, Ceci F, Cascino A, et al. Eating Behavior and Adherence to Dietary Prescriptions in Obese Adult Subjects Treated with 5-Hydroxytryptophan. *Am J Clin Nutr*. 1992; 56: 863-7
8. Cangiano C, Effects of oral 5-hydroxy-tryptophan on energy intake and macronutrient selection in non-insulin dependent diabetic patients. *Int J Obes Relat Metab Disord*. 1998 Jul;22(7):648-54 [PMID: 9705024]
9. Ribeiro CA. L-5-Hydroxytryptophan in the prophylaxis of chronic tension-type headache: a double-blind, randomized, placebo-controlled study. *Headache*. 2000 Jun;40(6):451-6. [PMID: 10849040]
10. Nagata E, et al. Plasma 5-hydroxytryptamine (5-HT) in migraine during an attack-free period. *Headache*. 2006 Apr;46(4):592-6 [PMID: 16643553]
11. Lee MA, et al. Inhibitory effect of ritanserin on the 5-hydroxytryptophan-mediated cortisol, ACTH and prolactin secretion in humans. *Psychopharmacology (Berl)*. 1991;103(2):258-64 [PMID: 1851310]
12. Mashchak CA, et al. Transient effect of L-5-hydroxytryptophan on pituitary function in men and women. *J Clin Endocrinol Metab*. 1983 Jan;56(1):170-6 [PMID: 6600170]
13. Wyatt RJ, Zarcone V, Engelman K, et al. Effects of 5-hydroxytryptophan on the sleep of normal human subjects. *Electroencephalogr Clin Neurophysiol* 1971;30:505-509
14. 5-HTP. www.naturalstandard.com {accessed 6.09.09}
15. Jellin JM, Gregoroy PJ, Batz F, et al. 5-Hydroxytryptophan. In: Pharmacist's Letter Natural Medicines Comprehensive Database. 5th edition, Therapeutic Research Faculty Stockton, 2003: 11-12

Cautions

Consult your licensed healthcare practitioner prior to use if you have or suspect you have a medical condition or are taking prescription drugs including drugs for depression, migraine, Parkinson's Disease, or psychiatric disorders. Do not use with other supplements containing L tryptophan or 5 HTP or certain other dietary supplements such as St. John's Wort, SAME and Hawaiian woodrose. Do not use if you are pregnant, lactating or under the age of 18. There are to date, no reported cases of Serotonin Syndrome due to overdose of 5-HTP, despite the theoretical possibility.

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