



## 5 HTP

Serving Size 1 veggie capsule  
Servings Per Container 120

Amount Per Serving

5 HTP (5-hydroxytryptophan) 50 mg

**OTHER INGREDIENTS:** Rice flour, cellulose, silica.

**SUGGESTED DOSE:** As a dietary supplement, take 1-2 capsules two times per day between meals or as directed by your healthcare professional.

\*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.

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NUTRITIONALLY SUPPLIES THE IMMEDIATE METABOLIC PRECURSOR TO SEROTONIN

- Dietary supplementation may enhance levels of:

1. Serotonin\*
2. Melatonin\*
3. Catecholamines\*
4. Endorphins\*

- May positively enhance mood\*
- May enhance the sleep cycle\*
- May reduce discomfort in patients with chronic pain\*
- May regulate feeding patterns and have positive bariatric (weight management) effects\*

**5-HYDROXYTRYPTOPHAN (5-HTP)** is the immediate precursor in the biosynthesis of the neurotransmitter 5-hydroxytryptamine (5 HT or serotonin). 5-HT is synthesized from the amino acid L-tryptophan. 5-HTP has replaced the use of L-tryptophan in the United States. In 1989, patients taking L-tryptophan developed a negative and debilitating reaction called eosinophilia-myalgia syndrome. Upon further study, it was determined that the culprit was not the L-tryptophan. It was actually a bacterial contaminant in the formula. L-tryptophan products associated with the syndrome were found to come from genetically modified bacterial recombinant production methods. Even though L-tryptophan was proven safe, it never recovered from this incident. 5-HTP was created to fill the gap created by the removal of L-tryptophan in the marketplace.\*

Small amounts of 5-HTP, as well as serotonin, are found in bananas, tomatoes, plums, avocados, eggplant, walnuts and pineapples. A common commercial source of 5-HTP is *Griffonia simplicifolia*, a relative to carob.\*

5-HTP's possible pain reduction benefit comes from its conversion to serotonin and to the observed effect of raising beta-endorphin and platelet met-enkephalin levels.\*

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### REFERENCES:

1. PDR for Nutritional Supplements, 1<sup>st</sup> Ed. Medical Economics/Thomson Healthcare. 2001.
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3. 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; 56:863-867.
4. Caruso I, Sarzi Puttini P, Cazzola M, Azzolini V. Double-blind study of 5-hydroxytryptophan versus placebo in the treatment of primary fibromyalgia syndrome. *J Int med Res.* 1990; 18:201-209.
5. Ceci F, Cangiano C, Cairella M, et al. The effects of oral 5-hydroxytryptophan administration on feeding behavior in obese adult female subjects. *J Neural Transm.* 1989; 76:109-117.
6. Genazzani AR, Sandrini G, Facchinetti F, et al. Effects of L-5HTP with and without carbidopa on plasma beta-endorphin and pain perception. Possible implications in migraine prophylaxis. *Cephalgia.* 1986; 6:241-245.
7. Ribeiro CA. L-5-Hydroxytryptophan in the prophylaxis of chronic tension-type headache: a double-blind, randomized, placebo-controlled study. For the Portuguese Head Study. *Headache.* 2000; 40:451-456.
8. Yamada J, Ujikawa M, Sugimoto Y. Serum leptin levels after central and systemic injection of a serotonin precursor, 5-hydroxytryptophan, in mice. *Eur J Pharmacol.* 2000; 406:159-162.

Serum leptin levels increased following 5-HTP injection in mice. This may explain 5-HTP's beneficial effect on weight management. Additionally, 5-HTP has been shown to reduce carbohydrate intake.\*

### Contraindications:

1. Patients on MAOIs (approved 2 weeks after discontinuation)
2. Patients with carcinoid tumors
3. Should not be used concurrently with medications such as SSRIs, tricyclic antidepressants, MAOIs.
4. Should not be used concurrently with serotonin 5-HT<sub>1</sub> receptor agonists including Naratriptan, Sumatriptan, and Zolmitriptan.
5. Patients with ischemic heart disease (Hx of myocardial infarction, angina pectoris, documented silent ischemia)
6. Patients with Hx of coronary artery spasm
7. Uncontrolled hypertension
8. Pregnant women and nursing mothers

### Side effects:

Due to excessive serotonin production side effects could include nausea, diarrhea, loss of appetite, vomiting, difficult breathing, dilation of pupils, exaggerated reflexes, loss of muscle coordination, blurring of vision and cardiac dysrhythmias.

### Note:

Carbidopa may increase 5-HTP transport across the blood brain barrier due to decreased peripheral 5-HTP metabolism.

Methyldopa inhibits conversion of 5-HTP to serotonin.