

[Center for Integrative Medicine](#)

Dietary Supplements: Tryptophan and 5-HTP

Overview: Tryptophan (or L-tryptophan) is an amino acid that our bodies use to make serotonin and melatonin. 5-HTP is the intermediate step on the pathway which also requires co-factors like vitamins and minerals (iron and vitamins B2 and B6).

Tryptophan → [5-HTP](#) → Serotonin → Melatonin

See the patient information page from the [Mayo Clinic](#) or the US NIH [MedLine Plus](#).

Uses: Tryptophan and 5-HTP have been used to promote healthy sleep and moods, to overcome cerebellar ataxia, anxiety, bipolar disorder, depression, fibromyalgia, headaches, night terrors, and premenstrual dysphoric disorder.

Sources

- Dietary sources: turkey, chicken, whey protein, milk, eggs, peanuts, peanut butter, soy, tofu, pumpkin seeds, sesame seeds. NOTE: There are 1000 milligrams of tryptophan in 3 ounces of egg white. There are about 240 milligrams of tryptophan in 3 ounces of turkey, chicken, beef or pork, and 300 milligrams in 3 ounces of sunflower seeds.
- Fructose malabsorption and lactose intolerance can interfere with intestinal absorption of tryptophan.
- Supplements: Make 5-HTP from the plant Griffonia simplicifolia.
- Tryptophan and 5-HTP are best absorbed when taken with a carbohydrate, e.g., turkey and pumpkin pie, or milk and cookies.

Typical adult doses of supplements

- Tryptophan: 50 -200 milligrams three times daily (up to 1600 milligrams total, but higher doses may cause headaches)
- 5-HTP: 50 - 100 milligrams three times daily
- Take on an empty stomach (not with meals), or with a glass of juice or milk, not a heavy meal.

Safety

- Foods containing tryptophan are generally safe. Tryptophan is Generally Recognized as Safe (GRAS) by the FDA. Tryptophan and 5-HTP supplements have not yet undergone quality testing by ConsumerLabs.
- Supplements may cause side effects. In 1989, a contaminated lot of tryptophan led to an outbreak of a serious condition called eosinophilia-myalgia syndrome (EMS). Tryptophan was withdrawn from the market until this issue was resolved. There have been no reported cases of EMS since tryptophan returned to the US market.
- Other potential side effects include sleepiness, lower blood pressure, headache, euphoria, mania, irritability, restlessness, heartburn, upset stomach, diarrhea, gas, and palpitations. Seizures have been reported in patients with Down's syndrome who started 5-HTP.
- Be very careful about taking these supplements if you are already taking SSRI medications or other antidepressant or anxiety medications because they could enhance the effects and side effects of SSRI medications.
- Check with your doctor about doses, duration of use, and to check for potential side effects or interactions.

www.wakehealth.edu/CIM - See Quick Link to Dietary Supplements