



5-HTP

Support for emotional well-being

Scientists and researchers have finally come up with a groundbreaking natural supplement that will safely and efficiently boost serotonin levels and reduce depression, insomnia, migraine headaches, and anxiety. That supplement is enteric coated 5-HTP. What is it and how can it help the chronic health complaints so many of us have to cope with everyday?

5-Hydroxytryptophan (5-HTP) is an amino acid that is the middle step between tryptophan and the important brain chemical serotonin. Considerable scientific evidence indicates that low serotonin levels are linked to a number of common conditions, including depression, obesity, fibromyalgia, and headaches. 5-HTP boosts serotonin levels and may offer benefit in conditions linked to low serotonin levels. Commercially available 5-HTP is isolated from a seed from an African plant (*Griffonia simplicifolia*).

HOW CAN IT HELP WITH DEPRESSION?

There is excellent documentation that 5-HTP is an effective antidepressant agent. 5-HTP often produces very good results in patients who are unresponsive to standard antidepressant drugs. Several double-blind studies show that 5-HTP is equal to or better than standard antidepressant drugs. The study with the most significance was one that compared to fluvoxamine (Luvox®), a “selective serotonin reuptake inhibitor” like Prozac®, Paxil®, and Zoloft®. In the study, subjects received either 5-HTP (100 mg) or fluvoxamine (50 mg) 3 times daily for 6 weeks. The percentage decrease in overall depression scores was slightly better in the 5-HTP group (60.7% vs. 56.1%). More patients responded to 5-HTP than fluvoxamine and 5-HTP was quicker acting than the fluvoxamine (Poldinger).

The real advantage of 5-HTP in this study was the low rate of side effects. The most frequent side effect with 5-HTP was mild nausea, but this only occurred in less than one out of ten subjects. However, Natural Factors’ 5-HTP caplets are enteric coated (pills prepared in a manner so that they dissolve in the small intestine rather than the stomach), virtually eliminating any nausea.

In contrast, antidepressant drugs usually produce moderate to severe side effects in 20 to 65% of subjects.

FIBROMYALGIA

Fibromyalgia is a recently recognized disorder regarded as a common cause of chronic musculoskeletal pain and fatigue.

Fibromyalgia is a relatively common condition estimated to affect about 4% of the general population. 5-HTP can largely improve the painful picture of fibromyalgia as demonstrated in several double-blind studies (Caruso).

HEADACHE

Because chronic headache sufferers have low levels of serotonin in their tissues, some researchers refer to migraine and chronic headaches as a “low serotonin syndrome.” There have been several clinical studies with 5-HTP in headaches, both migraine and tension headaches, that have shown excellent results. In particular, 5-HTP is very effective in the prevention of migraine headache (Soulaire).

EASES YOU INTO SLEEP

Several clinical studies have shown 5-HTP to produce good results in promoting and maintaining sleep in normal subjects as well as those experiencing insomnia (Wyatt). One of the key benefits with 5-HTP in the treatment of insomnia is its ability to increase sleep quality.

CAN IT HELP WITH WEIGHT LOSS?

As far back as 1975, researchers demonstrated that administering 5-HTP to rats that were bred to overeat and be obese resulted in significant reduction in food intake (Wurtman). It turns out that these genetically obese rats have decreased activity of the enzyme that converts tryptophan to 5-HTP and subsequently to serotonin. As a result, these rats never get the message to stop eating until they have consumed far greater amounts of food than normal rats.

There is much circumstantial evidence that many humans are genetically predisposed to obesity. This predisposition may involve the same mechanism as that observed in rats genetically predisposed to obesity. In other words, many people may be predisposed to being overweight because they have a decreased conversion of tryptophan to 5-HTP and, as a result, decreased serotonin levels. By providing preformed 5-HTP, this genetic defect is bypassed and more serotonin is manufactured. 5-HTP literally turns off hunger.

The early animal studies that used 5-HTP as a weight loss aid have been followed by a series of four human clinical studies of overweight women conducted at the University of Rome. These studies have shown that 5-HTP is able to reduce caloric intake and promote weight loss even if the women made no conscious effort to lose weight. 5-HTP

appears to promote weight loss by promoting satiety – the feeling of satisfaction – leading to fewer calories being consumed at meals. In one study, the group that received the 5-HTP lost an average of 4.39 pounds at 6 weeks and an average of 11.63 pounds at 12 weeks. In comparison, the placebo group had lost an average of only 0.62 pounds at 6 weeks and 1.87 pounds at 12 weeks (Candiano, Ceci, *et al.*).

HOW MUCH DO I TAKE?

Enteric coated 5-HTP is available in both a 50 mg and 100 mg strength.

For depression, weight loss, headaches and fibromyalgia the dosage should be started at 50 mg, 3 times per day. If the response is inadequate after 2 weeks, increase the dosage to 100 mg 3 times per day. Because 5-HTP does not rely on the same transport vehicle as L-tryptophan and is enteric coated, it can be taken with food. However, if taking 5-HTP for weight loss it is recommend taking it 20 minutes before meals.

For insomnia, the recommended dosage is 100 to 300 mg, 30 to 45 minutes before retiring. Start with the lower dose for at least three days before increasing dosage.

SAFETY

Although 5-HTP is very safe there are some cautions to consider:

- Do not use 5-HTP if you are taking an antidepressant drug unless under direct supervision of a health care practitioner
- Do not use 5-HTP if you are pregnant or lactating
- Do not use 5-HTP if you have Parkinson's disease and are not taking the drug Sinemet®
- Do not use 5-HTP if you have scleroderma

Possible Side Effects

5-HTP is generally very well-tolerated at recommended dosages.

Natural Factors 5-HTP caplets are enteric coated (pills prepared in a manner so that they will not dissolve in the stomach). Enteric coating significantly reduces the likelihood of nausea, even

allowing higher dosages (e.g. 300 mg or more as one dose) with little chance of nausea as a side effect. At the recommended dosage of 50 to 100 mg, 3 times daily nausea is highly unlikely, and other possible side effects such as drowsiness, dry mouth, and stomach irritation will be mild.

Drug Interactions

5-HTP can worsen Parkinson's disease symptoms unless the person is also on the drug Sinemet.

Because 5-HTP is the direct precursor to serotonin, it should not be used by individuals taking antidepressant drugs unless under the direct supervision of a health care practitioner. Although 5-HTP has been used safely in combination with prescription antidepressant drugs in clinical studies, taking this combination without medical supervision could result in too much serotonin in the body. The result is a condition known as the "serotonin syndrome," which is characterized by confusion, fever, shivering, sweating, diarrhea, and muscle spasms.

5-HTP may antagonize the effects of drugs used in migraine headaches like methysergide and cyproheptadine that block serotonin effects.

THE TIME IS RIGHT

Enteric coated 5-HTP is truly a groundbreaking supplement. It can address some of the more pressing health conditions that so many of us are forced to deal with every day. Research indicates this safe, natural supplement can provide help. Why not give it a try?

KEY REFERENCES

Ceci F., Cangiano C., Cairella M., *et al.*, "The effects of oral 5-hydroxytryptophan administration on feeding behaviour in obese adult female subjects", *J Neural Transm*, 76: 109-117; 1989

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*, 56: 863-867; 1992

Cangiano C., Ceci F., Cairella M., *et al.*, "Effects of 5-hydroxytryptophan on eating behaviour and adherence to dietary prescriptions in obese adult subjects", *Adv Exp Med Biol*, 294: 591-593; 1991

Caruso I., *et al.*, "Double-blind study of 5-hydroxytryptophan versus placebo in the treatment of primary fibromyalgia syndrome", *J Int Med Res*, 18: 201-9; 1990

Poldinger W., *et al.*, "A functional-dimensional approach to depression: Serotonin deficiency as a target syndrome in a comparison of 5-hydroxytryptophan and fluvoxamine", *Psychopathology*, 24: 53-81; 1991

Soulairac A., and Lambinet H., "Clinical studies of the effect of the serotonin precursor, L-5-hydroxytryptophan on sleep disorders", *Schweiz Rundsch Med Prax*, 77: 19-23; 1988

Wurtman R.J., and Wurtman J.J., "Brain serotonin, carbohydrate-craving, obesity and depression", *Adv Exp Med Biol*, 398: 35-41; 1996

Wyatt, R.J., *et al.*, "Effects of 5-hydroxytryptophan on the sleep of normal human subjects", *Electroencephalogr Clin Neurophysiol*, 30: 505-9; 1971