

L-TRYPTOPHAN

(A GMP Product)

Tryptophan is the precursor to Serotonin, a neurotransmitter in the brain, which is deficient in depression, and naturally enhances sleep.

Each capsule of FTH L-Tryptophan has 500 mg. of the *highest quality* USP L-Tryptophan available for professional use.

DIRECTIONS:

As a sleep aid, Take 1-3 capsules 30 minutes before bedtime, during the night if required, or as needed.

- If Serotonin deficiencies are noted in depression, and for anxiety and mood enhancement, take 1 capsule 30 minutes before dinner and 2 capsules 30 minutes before bedtime. **Take with fruit juice or water. Do not eat protein 2 hours prior to bedtime.**
- If low Catecholamines are also involved, include 2 **FTH L-Tyrosine** 30 minutes prior to breakfast, and 2 mid-morning or 30 minutes prior to lunch. Tryptophan should be taken with **FTH B Complex**, or **FTH Three Phos-B** (with P-5'-P, active B-6).

WHAT IS TRYPTOPHAN?

Tryptophan, an essential amino acid, is the precursor to Serotonin, which is a necessary neurotransmitter responsible for transmitting nerve impulses in the brain, and inducing sleep and tranquility. Serotonin deficiencies, which are related to Tryptophan deficiencies, are well documented in cases of depression and insomnia. Tryptophan also converts to Niacin, and Vitamin B-6 (Pyridoxal 5'Phosphate) is necessary for Tryptophan metabolism and conversion to Serotonin. The dietary sources of Tryptophan are cottage cheese, milk, brown rice, peanuts, meat, turkey and soy products. It is also available in supplemental form. FTH supplies only the highest quality, USP Tryptophan, which is now available for professional use. Tryptophan is very important for biochemical balance of the brain, and is very helpful for those with sleep deprivation, anxiety and mood enhancement due to low Serotonin levels. It also helps to biochemically balance the brain in those whose Serotonin levels are low because of chemical addictions. It has also been effective in appetite control, increasing pain tolerance and assisting those with jet lag.

RECOMMENDED TO ENHANCE STRUCTURE & FUNCTION RELATING TO NUTRITIONAL NEEDS AND DEFICIENCIES PERTAINING TO:

- Increasing Serotonin production - Low Serotonin levels and low Tryptophan levels have been associated with depression.
- Increases in Serotonin have also been helpful in those on weight reduction regimens.
- Serotonin deficiency, have been noted in Chemical Addictions.
- Sleep deprivation. Supplementation naturally enhances relaxation and sleep.
- Having an effect on pain tolerance

TRYPTOPHAN AND SLEEP

Sleep deprivation is a serious concern for many, and low Serotonin levels are often the cause of this problem. Tryptophan converts to Serotonin helping to induce relaxation and naturally enhancing sleep. 1-3 capsules 30 minutes prior to bedtime are recommended, on an empty stomach, with fruit juice or water. (No protein for 2- hours prior). Tryptophan can also be taken during the night. In extreme problems, Tryptophan should be taken early evening and again at bedtime. Vitamin B-6, along with increasing dietary complex carbohydrates are important for proper metabolism and effectiveness.

MOOD ENHANCEMENT

It has been well documented that low Serotonin levels have been associated with depression. Tryptophan naturally converts to this neurotransmitter. If depression also involves Catecholamine biochemistry, then taking Tryptophan in a regimen along with **FTH L-Tyrosine** is recommended. They compete for uptake in the brain, and because Tryptophan induces sleep, it is recommended that Tryptophan be taken prior to dinner & again prior to bedtime. **FTH L-Tyrosine** should be taken prior to breakfast & mid morning as well.

OTHER ASPECTS OF L-TRYPTOPHAN AND SEROTONIN AUTISM

Low levels of Tryptophan have been documented in autistic children, indicating that there may be a defect in the Tryptophan-Serotonin metabolism in the brain.

PAIN TOLERANCE

Increased Serotonin levels have an effect on increasing pain tolerance, especially for chronic pain. In one study, Tryptophan was administered at the dose of 1 - 500mg. capsule every 2 ½ hours (total 6 per day) resulting in a 50% reduction in pain intensity. A high carbohydrate diet is recommended to increase Tryptophan metabolism, along with Vitamin B-6. **FTH D-Phenylalanine** is also recommended in some cases to enhance results, and suggested.

APPETITE CONTROL

Some studies suggest that administering Tryptophan helps control appetite, for those who are on a weight reduction program.

CHEMICAL ADDICTION

Cocaine addiction causes a deficiency of L-Dopamine and causes both Catecholamine and Serotonin neurotransmitters imbalances. Administering both **FTH L-Tyrosine** and L-Tryptophan can help increase these neurotransmitters. This regimen has been used in chemical dependency units, along with conventional therapies. Tryptophan may also be helpful for those addicted to nicotine.

JET LAG

Supplementing with L-Tryptophan is recommended for those who travel and experience jet lag. It is most effective when taken in conjunction with **FTH L-Tyrosine** to increase Catecholamine as well as Serotonin production.

SAFETY OF L-TRYPTOPHAN

Volumes of research have been published on the effectiveness and safety on the supplementation of Tryptophan for deficiencies relating to sleep disorders, depression, pain tolerance and other benefits for more than 30 years. FTH supplies only the *highest quality* USP L-Tryptophan, which has been carefully evaluated.

***CAUTION:** Those taking drugs classified as SSRI or MAO inhibitors should not take Tryptophan supplementation without consulting with their physician.

REFERENCES

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