L-Tryptophan

Tryptophan is the precursor to Serotonin, a neurotransmitter in the brain, which is deficient in depression, and naturally enhances sleep. Tryptophan can be recommended to enhance structure and function relating to nutritional needs and deficiencies pertaining to:

- Low Serotonin levels and Tryptophan levels have been associated with depression
- Increases in Serotonin have also been noted in Chemical addictions
- Sleep Deprivation. Supplementation naturally enhances relaxation and sleep
- Having an effect on pain tolerance
- Increasing Serotonin Production

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. In 1989 contaminated Tryptophan (from an inferior source no longer in business) was responsible for a disorder known as EMS. Cocoon Nutrition only supplies the highest quality and purest Tryptophan.

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 biochemical 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.

Tryptophan and Sleep

Sleep deprivation is a serious concern for many, and low Serotonin level are often the cause of this problem. Tryptophan converts to Serotonin helping induce relaxation and naturally enhancing sleep. Two capsules 30 minutes prior to bedtime are recommended. If necessary Tryptophan can be taken during the night. In extreme problems, Tryptophan should be taken in the early evening and again at bedtime. Vitamins B-6, along with increasing dietary complex carbohydrates is important for proper metabolism and increasing effectiveness.

Mood Enhancement

It has been well documented that low Serotonin levels and low Tryptophan 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 Tyrosine is recommended. Since they complete for uptake in the brain, and because Tryptophan induces sleep, it is recommended that Tryptophan be taken prior to dinner and again prior to bedtime. Tyrosine should be taken prior to breakfast and 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 maybe 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 caused from arthritis and lower back problems. In one study, Tryptophan was administered at the dose of 1-500 mg. capsules every 2 1/2 hours (total 6 per days) resulting in a 50% reduction in pain intensity. A high carbohydrate diet is recommended to increase Tryptophan metabolism, along with Vitamin b-6. D-Phenylalanine is also recommended in some cases to enhance results.

**Appetite Control**
some studies suggest that administering Tryptophan helps control appetite, this means that Tryptophan can be helpful to those 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 L-Tyrosine and L-Tryptophan can help increase these neurotransmitters. This regimen has been used in chemical dependence units, along with conventional therapies. Tryptophan may also be helpful for those addicted to nicotine.

**Jetlag**
Supplementing with L-Tryptophan is recommended for those who travel and experience jet lag. It is most effective when taken in conjunction with 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 of the supplementation of Tryptophan for deficiencies relating to sleep disorders, depression, pain tolerance and other benefits for more that 30 years. However, in 1989 a disorder known as EMS was attributed to a contaminated batch of Tryptophan produced by a Japanese company that was distributed by many other companies in the US. The Mayo Clinic identified a biochemical abnormality, referred to as "peak x" in the contaminated batches. Cocoon Nutrition only supplies the highest quality pure L-Tryptophan that has been carefully evaluated. It does not have any contaminates or "peak x" abnormalities, and it has been safely used for many years to benefit those with Tryptophan and Serotonin deficiencies.

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