Replenishing Serotonin Levels Does More Than You Think

5-HTP

Enhance Your Mood, Your Sleep, and a Lot More

5-HTP (5-hydroxytryptophan) is a naturally occurring substance derived from the seed pods of Griffonia simplicifolia, a West African medicinal plant. In humans, 5-HTP is the immediate nutrient precursor to the neurotransmitter serotonin (5-HT). This means that 5-HTP converts directly into serotonin in the brain (see Figure 1). Serotonin has many profoundly important functions, including a role in sleep, appetite, memory, learning, temperature regulation, mood, sexual behavior, cardiovascular function, muscle contraction, and endocrine regulation.

WHAT'S THE PROBLEM WITH SEROTONIN DEFICIENCY?

Serotonin production declines with age, and at any age its abundance can be compromised further by stress. Low levels of serotonin are most commonly manifested by depressed mood, anxiety, and insomnia. They can also lead to various other complaints and disorders, diminishing one's quality of life. But now something can be done: supplementing with 5-HTP.

5-HTP CAN RESTORE SEROTONIN LEVELS AND HELP IMPROVE:

1. General mood
2. Depression
3. Anxiety
4. Insomnia
5. Weight loss
6. PMS
7. Chronic headaches
8. Migraines
9. Fibromyalgia

Figure 1. Serotonin metabolism. The brain neurotransmitter serotonin is replenished naturally by the nutrient 5-HTP, leading to more efficient functioning of neural pathways.
WHAT'S THE DIFFERENCE BETWEEN 5-HTP AND PROZAC®?

Prozac is a prescription drug, whereas 5-HTP is a natural nutrient supplement. Prozac is in a class of drugs called SSRIs (selective serotonin reuptake inhibitors), other examples of which are Zoloft® and Paxil®. These drugs were originally developed to treat depression. Now they are widely prescribed for other disorders, including anxiety, sleep disturbance, PMS, obesity, chronic headaches, and other chronic pain disorders. Studies of 5-HTP have shown it to be valuable for all the same disorders. In direct comparison with an SSRI, 5-HTP has been shown to be equivalently beneficial for depression, but with significantly fewer side effects.

Both 5-HTP and SSRIs increase the availability of serotonin in the brain, but they work in different ways. SSRIs prevent serotonin from being taken back up into the neurons, leaving more of it available in the synapses between neurons. In other words, SSRIs allow the brain to reuse the serotonin that is already there. By contrast, 5-HTP replenishes serotonin levels by biological synthesis of additional serotonin molecules, providing new stores of this necessary neurotransmitter in the brain.

5-HTP MAY BE BETTER THAN TRYPTOPHAN

Tryptophan supplements have a long history of use for treating depression and anxiety disorders and for enhancing sleep. Unfortunately and unjustifiably, the FDA has since 1988 prohibited the manufacture and sale of tryptophan in the U.S., based on a single contaminated batch by a Japanese company during the late 1980s. The FDA has maintained this ban despite overwhelming evidence that it is not only unnecessary, but it is inducing people to take dangerous and expensive drugs to achieve the benefits they could achieve safely and inexpensively with tryptophan.

While the ban on tryptophan may be needless and deplorable, it has had one unforeseen benefit: it has allowed 5-HTP, which is one step closer to serotonin in the metabolic pathway, to take the stage. It turns out, by some studies, that 5-HTP may be even better than tryptophan for treating suspected serotonin deficiency disorders of the brain.

HOW ARE 5-HTP FORMULATIONS DIFFERENT?

5-HTP alone is available for those who do not wish to use it in a formulation. In general, it has few to no side effects. Because of the many benefits that 5-HTP can offer, however, several advanced formulations provide a range of options for people with differing personal needs.
SUPPLEMENTING WITH 5-HTP FOR ENHANCED MOOD

A mood-enhancing formulation containing primarily 5-HTP, a form of vitamin B6, and St. John's wort is designed to counteract age-related serotonin depletion and to provide general mood enhancement. Because it supports healthy serotonin levels, it may help those who are subject to mild to moderate depression. In addition, it may help with any of the other disorders discussed above.

5-HTP is well established for its mood-enhancing properties, among other benefits. St. John's wort, as well, has been studied with positive results for the treatment of mild depression. Its mechanisms of action are not clearly understood, but they are probably different than 5-HTP's. It has been used for a wide variety of conditions since at least the time of ancient Greece, and it was commonly used throughout the folk medicine of the Middle Ages. It is currently in widespread use in Germany as a standard treatment for depression.

Over the centuries, St. John's wort earned its reputation as a powerful mood-altering substance. Now science is confirming this reputation. When combined judiciously with 5-HTP, St. John's wort acts synergistically, i.e., the combined effect of the two ingredients is greater than the sum of their individual effects. Other uses are for improved wound healing, anti-inflammatory effects, antimicrobial activity, sinusitis relief, seasonal affective disorder (SAD), and, especially, relief from depression.

FOR MOOD AND ENERGY

5-HTP, DHEA, and phenylalanine can combine synergistically for those who need to enhance mood while boosting energy. Together they are particularly helpful in counteracting the age-related decline - affecting just about everyone over 30 years old - of the hormone DHEA and the neurotransmitters serotonin and noradrenaline, of which 5-HTP and phenylalanine are the respective precursors.

Serotonin deficiency is strongly linked with depression, for which 5-HTP can counteract. DHEA also reduces depression, and high levels of this hormone have been associated with increased energy, stamina, libido, and a sense of well-being. As with 5-HTP, people just feel better when they use DHEA.

Phenylalanine, the nutrient precursor to the neurotransmitter noradrenaline, (your brain's version of adrenaline), is important for alertness, focus, concentration, memory, and mental energy. With noradrenaline insufficiency, mood or energy levels may decline and may even bottom out, for example, in depression. There is a growing body of both clinical and anecdotal evidence showing that phenylalanine supplements can alleviate the
symptoms of some forms of depression. They can also boost various aspects of mental function in healthy people who wish to maximize their ability to stay that way.

In addition to the age-related decline in the amounts of hormones and neurotransmitters in our bodies, these substances may not be utilized as efficiently as we grow older. Their effectiveness can also diminish in response to chronic stress, further diminishing the brain's vital functions. The answer, of course, is to get those levels of DHEA, serotonin, and noradrenaline back up to youthful levels by supplementing with the natural substances DHEA, 5-HTP, and phenylalanine, which cannot be obtained in adequate amounts through an unsupplemented diet.

**FOR A GOOD NIGHT'S SLEEP**

It is well known that insomnia is age-related. Sleep disorders can be associated with significant medical, psychological, and social disturbances. In addition to fatigue, sleep deprivation can lead to impairment of memory, mood, and immune function, as well as to anxiety, depression, and stress. Nutritional supplements containing 5-HTP, melatonin, valerian root, and choline alleviate these problems by assisting you in getting a good night's sleep.

The precursor to 5-HTP, tryptophan, has long been used as a sleep aid. Not surprisingly, evidence suggests that 5-HTP may be effective as well. Recent studies have shown that increased levels of serotonin - obtained by supplementing with 5-HTP - can help reestablish healthy sleep patterns in people with chronic sleep disturbances. Serotonin has even been shown to help ease withdrawal from hypnotic drugs.

One of serotonin's metabolic pathways leads directly to melatonin, widely acknowledged today as the hormone responsible for our wake-sleep cycle. By increasing your levels of serotonin with 5-HTP, you're thus also increasing your levels of melatonin - but probably not sufficiently for an advanced sleep formulation, which is why additional melatonin is recommended. Melatonin has also been found to improve immune function, to help improve stress-induced immunodepression, and to be beneficial for a long list of degenerative diseases.

Valerian root, a Eurasian herb, has long been popular as a natural aid for enhancing sleep. Recently, the extract of valerian root was tested against a benzodiazepine (Valium®-type) drug for sleep and found to compare quite favorably. Valerian can help you fall asleep and improve your quality of sleep, allowing you to wake up refreshed. One study showed that valerian users were more alert, more active, and felt better than before.
Finally, choline is the nutrient precursor to the neurotransmitter acetylcholine, which helps to protect our sound sleep so we don't wake up from every little creak or murmur, or from our spouse turning in bed. Supplementing your diet with these natural substances can help diminish or eradicate sleep disturbances and help restore healthy sleep patterns. Doing that can, in turn, restore many other aspects of good health.

WEIGHT LOSS

The herbal product ephedra induces fat loss through a mechanism called thermogenesis (fat burning), and white willow bark and caffeine act synergistically with ephedra.

It is believed that genetically induced serotonin deficiency is another common factor in obesity. 5-HTP, well known for its use in serotonin deficiency syndrome, is recognized as a natural carbohydrate appetite satisfier. It is readily converted into serotonin in the brain, which in turn causes the release of cholecystokinin, the satiety hormone. Thus, 5-HTP, ephedra, and white willow bark together are likely to effect weight loss via two different mechanisms: fat burning and appetite satisfaction.

Since 5-HTP also tends to have relaxing or calming effects, many users report that it helps offset the stimulatory effects of the other agents.

A FAMILY OF SUPPORT

One of the traditional benefits of a family is the support it can offer, especially in times of stress. If the family network is strong enough, there's always someone to turn to when needs arise.

Because of its broad range of benefits, 5-HTP is like a family network in many ways. For example, it can help you mellow out, satisfy your appetite, and withstand stress. It can also help prevent pain, improve sleep, relieve muscle stress, and even improve certain types of memory.

Many people rave that 5-HTP has vastly improved their lives and that it is difficult to imagine how their lives would be otherwise. When you realize that there are many ways to amplify its benefits - by combining it with other, synergistic herbs and nutrients - the full scope of 5-HTP options becomes apparent. One or more of these options may be just right for you.
References