

Seroctin®

PRODUCT SUMMARY SHEET

THE RIGHT TIME, THE RIGHT PRODUCT:

Ask yourself the following question:

If the U.S. Center of Disease Control states that over 86% of all doctors office visits can be attributed to prolonged periods of stress, don't you feel it's important to offset the effects of stress before it becomes a problem?

Due to it's long list of symptoms (both physical and emotional), stress is one of the largest growing segments of health-related complaints in the world. One of the main impacts that stress has is the alteration of Serotonin balance and its corresponding neurotransmitters.

Did you know that Serotonin is in charge of over a dozen pathways which directly influence the way you think, and feel?

Seroctin's principle action is serotonin balance. This document will provide a brief summary of what serotonin is and the biological actions influenced by proper serotonin balance.

Seroctin is an impact product! Everybody knows somebody who can benefit from Seroctin! Here is a summarized list of Seroctin's main benefits:

- Improved Mood and optimism
- Emotional Energy
- Rejuvenating Sleep Patterns
- Sharpened Mental Focus
- Normalized Libido & Sexual Performance
- Lessened Stress & Anxiety

PRODUCT HISTORY:

Twenty five years ago researchers initiated a study on population growth in animals to determine why reproductive rates are commonly higher in the spring than in other times of the year.

The results of this study uncovered the astonishing fact that a unique family of compounds present during a short time period in the springtime growth of certain plants enhanced the feeling of well-being in many animals. Consequently, this feeling of well-being increased their libido and ultimately their reproductive patterns.

Since the time of this discovery, this unique collections of natural compounds have been referred to as Seroctin. Subsequent to discovering Seroctin's unique nourishing influence, the main challenge has been discovering a way to naturally generate sufficient quantities of Seroctin to realize it's benefits in humans.

Since 2001, Suvida has made quantum leaps in optimizing the growth, quality and concentration of Seroctin, which has been demonstrated in lab, animal, and human testing.

Prior to testing for human consumption, Seroctin safety, toxicity, chronicity and sexual tests were conducted on a variety of animals, from lemmings to rabbits, ostriches to quail and even the giant Panda.

Animal tests illustrated improved mood, more frequent sexual activity along with measurable improvements in fertility and embryo survival, higher sperm counts, enhanced egg viability and faster growth of babies.

Once the success of these animal tests was demonstrated, similar tests were conducted on both male and female human control groups.

A number of key findings include the following:

Seroctin generated nearly a 50% rise in serotonin levels when called upon to do so.

- As mentioned earlier, tryptophan is the amino acid from which serotonin is made. It is also the least abundant of essential amino acids in most diets. This means that a very limited amount of tryptophan is usually available for making serotonin. Tryptophan dioxygenase (TDO) converts tryptophan to kynurenine, an amino acid excreted in urine. With increases in TDO activity, kynurenine is made at the expense of serotonin. Therefore TDO activity is a good indicator of the amount of tryptophan being converted into serotonin. The greater the TDO activity, the less serotonin is being made. In the results of this study, TDO activities were decreased by as much as 50%, leading to a significant rise in the amount of tryptophan available to the brain for serotonin production.

- Serotonin is metabolized into hydroxyindole acetic acid (HIAA) and then passed via the kidneys into urine. Elevated HIAA levels indicate that greater amounts of tryptophan are being made into serotonin. Serroctin increased HIAA levels two-fold in this Serroctin study.
- Tryptophan hydroxylase (TPH) is the enzyme in serotonin that limits the rate of serotonin synthesis. This study demonstrated that Serroctin increased TPH activity 33%.
- Melatonin is synthesized from serotonin. Reduced melatonin levels have been closely linked to behavioral changes and mood disorders. Melatonin levels typically decrease with age, which explains why younger people have fewer problems sleeping than do older people. It is also believed that melatonin strengthens the immune system and reduces free radicals in the body. These laboratory studies demonstrated that melatonin production becomes significantly elevated in the presence of Serroctin.

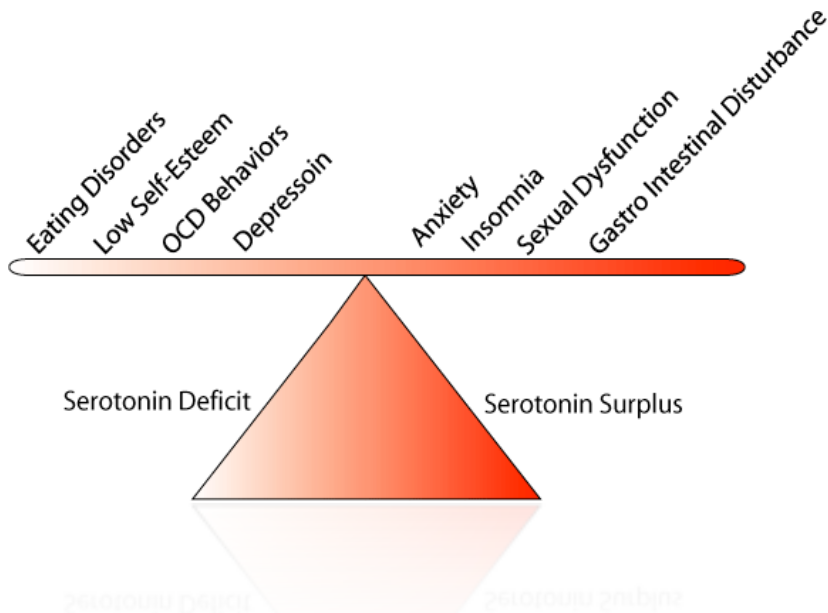
Translated into non-technical terms, Serroctin delivers widespread and potentially life saving benefits, including:

- Enhanced mood, energy and a general feeling of well-being.
- Sharper mental focus and enhanced learning capability.
- Improved sleep patterns.
- Reduced anxiety.
- Increased frequency and duration of sexual activity.

Serroctin's Differential Competitive Advantage:

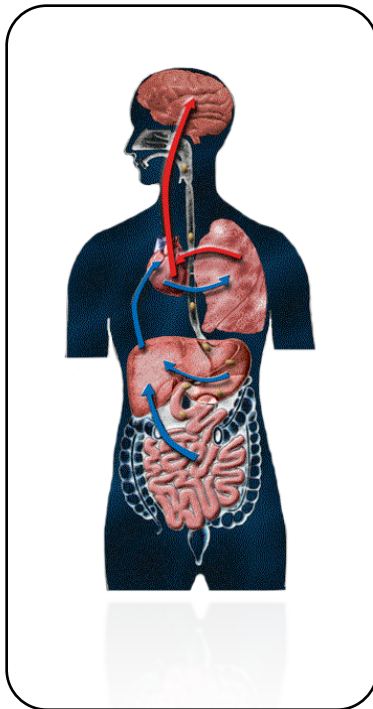
Serroctin's main advantage resides in its ability to BALANCE serotonin and its corresponding pathways (such as melatonin) without artificially altering the natural course of action typical to pharmaceuticals.

The natural properties of Serroctin assist the pineal gland, the hypothalamus, the pituitary gland, and the Raphe nuclei in balancing and distributing proper serotonin levels in the body. The "balancing" is a key aspect in Serroctin's ability to influence positive moods and perceptions. If serotonin is found out of balance, there are negatively-associated symptoms with both deficits and surpluses of serotonin.



Most nutritional supplements that are designed to directly stimulate serotonin production fall short of delivering the desired benefit. Taking Serotonin stimulants generally leads to taking additional supplements to offset other side effects caused by serotonin surplus. Serotonin's maximum benefit is realized when it is in BALANCE.

Seroctin- FROM MOUTH TO BRAIN:



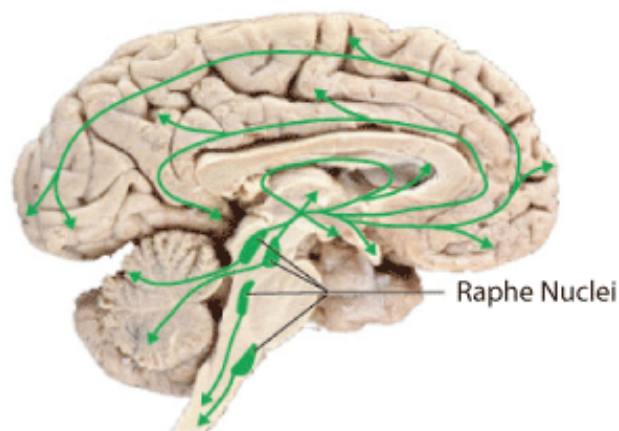
Once ingested, a small percentage of Serroctin molecules are absorbed from the stomach into the bloodstream, but most of the Serroctin molecules move from the stomach into the small intestine. There, they are absorbed into the bloodstream very easily.

Serroctin molecules that have entered the bloodstream from the stomach and small intestines then travel to the liver (shown by the bottom blue arrows). In the liver, some of the Serroctin is metabolized to inactive compounds and the rest is carried through the veins to the heart (blue arrow). Once in the heart, the Serroctin is pumped to the lungs along with the blood, which becomes oxygenated and then returns to the heart (red arrow). Now, oxygenated blood carries the Serroctin from the heart to the brain (red arrow) and to other organs in body that have a high blood flow. Normally there is a barrier between the blood vessels in brain and brain matter, which excludes many ingested compounds from entering the brain. However, Serroctin is predominantly in its nonpolar form in blood and therefore it crosses the barrier into the brain very easily.

Upon entering the brain, Seroctin has a gently, yet positive impact on the recruitment and displacement of serotonin throughout its entire pathway.

SEROTONIN PATHWAYS:

The Raphe nuclei neurons extend processes to and dump serotonin onto almost the entire brain, as well as the spinal cord. Serotonin plays a role in many brain processes, including regulation of body temperature, sleep, mood, appetite and pain. Problems with the serotonin pathway can cause obsessive-compulsive disorder, anxiety disorders, and depression.



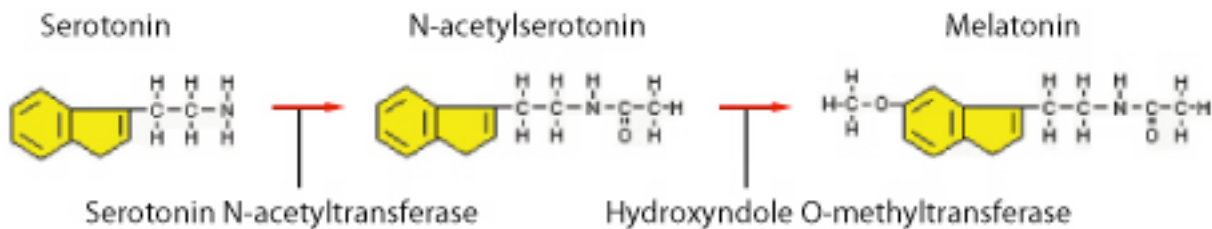
Serotonin Action

In order for the Raphe Nuclei to distribute Serotonin to the brain, it first has to have something to distribute. Serotonin cannot be produced out of thin air. Serotonin is produced with the help of naturally generated tryptophan. The body converts tryptophan into an intermediate amino acid known as 5-hydroxytryptamine.

This conversion process is fairly complex and not that efficient. Of the eight essential amino acids, tryptophan is the least common, accounting for only about one percent of protein content. In addition, tryptophan competes with other amino acid absorption to get into the bloodstream. Throughout this entire process only about one percent can be converted to serotonin. This fact places additional need for Seroctin supplementation. Seroctin ensures that the serotonin that is available is properly distributed and modulated to achieve the critical serotonin balance. It also appears that Seroctin may have an additional benefit with serotonin receptors, further enhancing the efficiency and balance of this critical neurotransmitter.

SEROTONIN AND MELATONIN...The need for proper balance:

When tryptophan, which crosses the blood—brain barrier, reaches the CNS, it is converted into cerebral serotonin. The circulating tryptophan will also reach the pineal gland where it is converted into serotonin; this conversion occurs during daylight with the assistance of beta-receptors in the pinealocytes. At night, the pineal serotonin is converted by a special enzyme (HIMOT) into melatonin.



Pineal serotonin released in the CSF increases the activity of cerebral neurons but decreases the activity of the serotonergic neurons of the Raphe Nuclei, which normally inhibit the trigeminovascular system. When this inhibition is controlled, the hyperactivity of the trigeminovascular system leads to dilation and inflammation of cerebral vessels in the domain of the trigeminal nerve (headache!)

The influence of melatonin has been also widely investigated, particularly with relation to the metabolism of serotonin, the activity of cerebral neurons and the endocrine system. Whereas serotonin released by the pineal gland in the CSF leads to decreased activity of the serotonergic Raphe Nuclei, melatonin does just the opposite. Therefore less melatonin also leads to decreased activity of the Raphe Nuclei.

The combination of excessive serotonin and diminished melatonin leads to increased trigeminovascular activity which is responsible for the headache phase of migraine. **This is yet another example why influencing balance is better than influencing powerful stimulation of singular pathways.**

IN SUMMARY...

Seroctin is a unique and effective PATENTED raw material that can greatly assist with the delicate process of balancing, distribution and reception of serotonin and other complimentary neurotransmitters.

In a world of exponentially increasing workloads and responsibilities, Seroctin truly is the right product, at the right time.