



### **How Serotain™ Works**

Serotain™ contains an extract of *Griffonia simplicifolia*, a West African medicinal plant, and other natural sources of 5-HTP which provides brain cells with the necessary materials to make more serotonin. This is done without monoamine oxidase inhibition (MAOI) and without the serious side effects of other antidepressant drugs such as Prozac, Zoloft and imipramine, which belong to a class of drugs known as selective serotonin reuptake inhibitors (SSRIs). These drugs influence serotonin levels by blocking its inactivation which increases serotonin levels indirectly, causing a cellular deficiency. Serotain™ appears to inhibit serotonin reuptake in bioassays but without causing a cellular deficiency. Also, by definition, SSRIs interfere with the brain's natural physiological regulatory system, in which cells slow down serotonin secretion. Side effects include dry mouth, reduced libido, heart palpitations, tremors, and anxiety(7).

In short, Serotain™ does what the SSRIs cannot: increase the cells production of serotonin to boost serotonin levels.

Simply by eating more tryptophan-rich foods may not provide your brain with all it needs to produce more serotonin. There is a constant struggle between tryptophan and other amino acids (e.g., tyrosine, phenylalanine, leucine, methionine, and histidine) to gain access to the brain. Therefore, eating a high-protein diet, may increase the blood levels of these competing amino acids and tryptophan levels in the brain may actually decrease(7). Serotain™ may be taken with meals without decreasing its effectiveness because 5-HTP absorption is not affected by the presence of other amino acids(1).

### **Natural Mood Elevator and Antidepressant**

5-HTP, found in Serotain™, has been shown to be effective as a mood elevator and for treating the symptoms of clinical depression(1).

### **Natural Appetite Suppressant**

5-HTP, found in Serotain™ has been shown to increase weight loss by decreasing appetite(1).

Research is available on 5-HTP and weight loss. Early animal studies with 5-HTP in the 1970's were followed up by a series of three clinical human studies conducted at the University of Rome's Internal Medicine Department under the direction of Carlo Cangiano and Fabrizio(8,9,10).

A 1992 study with obese subjects in Italy found that 5-HTP produced "significant weight loss". Specifically, 5-HTP helped patients reduce their carbohydrate intake and gave them a feeling of "early satiety"- that they had eaten enough and felt calorically satisfied. This, in turn led to a reduced food intake and, from there, weight loss was at hand(7).

### **Natural Sleep Aid**

The extracted 5-HTP, found in Serotain™ works to gently induce sleep not only by its conversion to serotonin but, also by its subsequent conversion to melatonin, the body's primary sleep hormone(1).

### **Is Serotain™ a Monoamine Oxidase Inhibitor (MAOI)?**

Bioassays support the historical data which shows the natural 5-HTP in Serotain™ does not inhibit monoamine oxidase which increases its safety. MAOI's should be accompanied by a caution label warning consumers that the consumption of yellow cheese, red wine and other foods containing tyramine may cause a hypertensive crisis while taking this medication(11).

### **How Does Serotain™ Compare to Tryptophan?**

The natural 5-HTP in Serotain™ is readily absorbed from an oral dose with approximately 70% bioavailability and easily crosses the blood brain barrier(2). The absorption of tryptophan from the intestine is significantly less than 5-HTP from the intestine and much of the absorbed portion is metabolized by enzymes found in the liver(3).

In a double-blind comparative study, tryptophan was not as effective as an antidepressant as was 5-HTP(4).

### **Why Use Serotain™ Instead of St. John's Wort?**

Because there are many potentially active compounds in St. John's wort it is very difficult to determine its precise mechanism of action(1).

Independent bioassay results indicate that Serotain™ appears to be safer and significantly more effective than St. John's wort 0.3% extract in increasing serotonin levels.

### **Is Serotain™ Safe? YES!**

\* Contains NO synthetic material, which means NO questions concerning contaminants in the product from the manufacturing process.

\* The natural 5-HTP, found in Serotain™, works completely different than serotonin depleting compounds such as fenfluramine(5).

\* Serotain™ was found negative in independent laboratory acute toxicity testing(6).

\* The natural 5-HTP, found in Serotain™ is not a monoamine oxidase inhibitor.

\* "5-HTP produced by extraction method has been used in Europe for over twenty years by millions of people with no reported toxicity or side-effects"(11).

### **References:**

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