

TECHNICAL DATA SHEET

Mood Support Formula



***Mood Support Formula** is predicated on extensive scientific research that indicates depression is strongly associated with an imbalance in brain chemistry. By nutritionally changing and altering the brain chemistry we can better address the fundamental causes of depression and help bring about a resolution of symptoms. **Mood Support Formula** contains the key, clinically studied and scientifically researched ingredients that include therapeutic dosages of 5-hydroxy tryptophan, St. John's Wort (*hypericum*), Ginkgo biloba, Kava, *Rhodiola rosea*, and L-theanine. We also added the B-complex vitamins that have been repeatedly shown to be deficient in depressed patients.*

INGREDIENTS

5-Hydroxytryptophan (5-HTP) is one step closer to serotonin manufacture than tryptophan. 5-HTP offers significant advantages over tryptophan. First, it is inherently safer because it is extracted from the seed of an African plant (*Griffonia simplicifolia*) rather than being synthesized with the aid of bacteria. And, unlike tryptophan, 5-HTP cannot be converted to kynurenine and easily crosses the blood brain barrier. As a result, while only three percent of an oral dose of tryptophan is converted to serotonin, over seventy percent of an oral dose of 5-HTP is converted to serotonin (1). In clinical studies, administration of 5-HTP increased serotonin levels (2). In addition to increasing serotonin levels, 5-HTP causes an increase in endorphin and other neurotransmitters that are often decreased in cases of depression. Numerous double-blind studies have shown that 5-HTP has equal effectiveness compared to drugs like Prozac, Paxil, and Zoloft (the selective serotonin reuptake inhibitors, SSRI's) and tricyclic antidepressant drugs like imipramine and desipramine in terms of effectiveness, and that it offers several advantages: it is less expensive, better tolerated, and associated with fewer and much milder side effects (3).

L-Theanine is the major amino acid found in green tea. Theanine has historically been used for its relaxing and anti-anxiety effects by increasing levels of GABA and serotonin (4). Theanine promotes relaxation and assists in stress reduction by enhancing alpha wave production in the occipital and parietal regions of the brain. Theanine is also useful for supporting healthy cellular function. Preliminary research suggests that L-theanine may be helpful for premenstrual support including healthy attitude. Furthermore, theanine has been reported to moderate the effects of caffeine on the central nervous system.

L-Tyrosine is a nonessential amino acid that the body synthesizes from phenylalanine. Tyrosine is a precursor of catecholamine neurotransmitters, including l-dopa, dopamine, epinephrine, and norepinephrine (5). These neurotransmitters are responsible for supporting emotional well-being and mental function. L-tyrosine plays a role in promoting healthy neurotransmitter function in response to environmental and emotional stress. It has demonstrated the potential to promote cognitive function and memory under stressful conditions.

Ginkgo Biloba contains ginkgoheterosides and the terpene lactones as their active components that enhance the flow of oxygen and blood to the brain and improve transmission of nerve impulses, supporting mental acuity (6). Ginkgo leaf flavanoids have antioxidant and free radical scavenging properties (7). Researchers took interest in studying the antidepressive effects of ginkgo extract after noticing the improvement in mood, noted by patients suffering from cerebrovascular insufficiency. In a recent double-blind study, patients with depression who had not benefited fully from antidepressant drugs were given ginkgo extract, three times a day. By the end of the fourth week of the the study, the total score of the Hamilton Depression Scale was reduced from an average of 14 to 7. At the end of the eight-week study the ginkgo group dropped to 4.5 while the placebo group only dropped from 14 to 13.

Kava (Piper methysticum) uses the rhizome, root and stem as the applicable parts. Pharmacological activity has largely been attributed to the kava-lactones (also known as kavapyrones), kawain (kavain), dihydrokawain, methysticin, dihydromethysticin, yangonin, and others (8). Highly regarded as an anti-anxiety botanical, kava promotes a relaxed social state, with heightened mental acuity (9). One study indicated that kava was very comparable to a drug similar to Valium, but without the side effects of grogginess associated with the drug.

Rhodiola Rosea a Siberian plant also known as Golden root or Arctic root, has been used traditionally for hundreds of years in countries including Russia and Siberia. *Rhodiola rosea* is an adaptogen (increases resistance to the harmful effects of stressors) and moderates the effects of physical and emotional stress (10). In a separate, double-blind, placebo-controlled pilot study, *Rhodiola rosea* provided support for physical and mental stress in students. *Rhodiola* stimulates and supports the activity of neurotransmitters such as serotonin, norepinephrine and dopamine leading to enhanced cognitive function, attention and memory (11). In another study, *Rhodiola* extract was shown to promote endurance and coordination in athletes. In a university study, it enhanced physical work capacity and improved recovery time for individuals participating in high intensity exercise.

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St. John's Wort (Hypericum) uses the flowers and to a lesser extent, the leaves as the applicable parts. Hypericin, hyperforin, and adhyperforin are the active constituents. Both hyperforin and adhyperforin appear to modulate the effects of serotonin, dopamine, and norepinephrine (12). In over 25 double-blind studies examining the effectiveness of St. John's wort extract, the results showed that it was just as effective as pharmaceutical antidepressants in alleviating symptoms of mild to moderate depression, and with very few side effects. St. John's wort is a well-tolerated, natural way to promote feelings of emotional well-being (13). Many researchers believe that St. John's wort maintains normal mood and emotional stability by inhibiting serotonin uptake, monoamine oxidase, and interacting with GABA receptors.

B Complex Vitamins Extensive research has been done to illustrate the association of B vitamin deficiencies and depression. Studies show that when people who are deficient in B vitamins supplement with appropriate B vitamins, their mood improves. Vitamin B6 is especially important because it is needed in the conversion of 5-HTP into serotonin. Vitamin B1 (thiamin), B2 (riboflavin 5' phosphate), B3 (niacinamide), B12 (methylcobalamin) and folic acid are also included. Deficiencies in these nutrients have been strongly linked with depression and other psychiatric illnesses. Folic acid is needed for DNA synthesis. Folic acid has been associated with depression and other psychiatric symptoms (14). Low concentration of folate in the blood have been linked with poor cognitive function.

CAUTION: St. John's Wort can have potentially dangerous interactions with some prescription drugs. Consult your physician before taking St. John's Wort if you are currently taking anti-coagulants, oral contraceptives, anti-depressants, anti-seizure medications, drugs to treat HIV or prevent transplant rejection, or any other prescription drug. This product is not recommended for use if you are or could be pregnant. This product may not be safe for your developing baby.

Mood Support Formula

Quantity: 90 capsules

Serving size: 3 capsules

Directions: 1 capsules, 3 times daily with food, or as directed by your health care professional.

Each 3 capsules contain:

Vitamin B1 (as Thiamin HCl)	75 mg
Vitamin B2 (as Riboflavin-5'-Phosphate)	30 mg
Vitamin B3 (as Niacinamide)	45 mg
Vitamin B6 (as Pyridoxine HCl)	75 mg
Vitamin B12 (as Methylcobalamin)	1200 mcg
Folic Acid	2400 mcg
St. Johns Wort Extract (0.3% Hypericin) (flowers)	900 mg
L-Tyrosine	750 mg
Kava root extract (30% Kavalactones) (rhizome & root)	90 mg
5-HTP (5-Hydroxytryptophan)	60 mg
L-Theanine	60 mg
Rhodiola rosea Extract (3% Rosavins) (root)	60 mg
Gingko biloba Extract (24% ginkgoheterosides) (leaf)	45 mg

Other ingredients: Vegetarian capsules

Contains No: wheat, dairy, soy, corn or preservatives. No binders, fillers or flowing agents.

Patients: Consult with your healthcare professional for the proper dosage and use of this formula.

For more information about this and other Condition Specific Formulas®, please visit our website at:

www.mpn8.com



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