**Discussion**

**Inositol** Present as the distinct isomer myo-inositol, inositol is a six-carbon cyclic polyalcohol that occurs naturally in all living cells. Fruits, beans, grains, and nuts contain some inositol; however, an 1800-2500 calorie daily diet has been shown to provide only 225-1500 mg of myo-inositol. Of the nearly 100% of ingested myo-inositol that is absorbed in the gastrointestinal tract, more than half becomes lipid-bound. In contrast to low plasma concentration, the peripheral nerves have an extraordinarily high concentration of myo-inositol.\(^1\) Inositol is a precursor for the second-messenger phosphatidylinositol system, which affects mood status differently than precursors for neurotransmitters.\(^2\) Based upon validated scoring procedures, double-blind, controlled, random-order crossover clinical trials using up to 18 grams of myo-inositol per day for a month have demonstrated minimal to no side effects and impressive efficacy in comparison to placebo or drug.\(^3,4\)

**GABA** (gamma-aminobutyric acid) GABA is an amino acid manufactured in brain cells from glutamate. This primary neurotransmitter, abundant in the cerebral cortex, increases the production of alpha waves (related to a relaxed, yet mentally focused state) while decreasing beta waves (associated with hyperactivity, nervousness, and fleeting thoughts). Sufficient GABA results in the smooth, calming, regular rhythmic flow of electrical impulses in the brain needed for emotional well-being.\(^5\) The absence of sufficient GABA may be responsible for headaches, palpitations, poorly regulated blood pressure, poor sex drive, and may even contribute to seizures. Supplementation in humans has shown support for healthy cortisol and secretory IgA levels while under stress.\(^6\)

**L-Taurine** A 2-aminoethanesulfonic acid originally isolated from ox bile, L-taurine exists mainly in free form in the intracellular space of tissues. This conditionally essential amino acid maintains cell volume via osmoregulation, the process correcting excessive or insufficient concentrations of electrolytes, and stabilizes cell membranes in the heart and brain, two electrically active tissues. Considered neuroprotective, taurine modulates the ability of mitochondria to buffer intracellular calcium during glutamate depolarization and excitotoxicity—the means by which neurons are overstimulated and damaged—and thereby may prevent cell death.\(^7\) In addition to its antioxidant and anti-inflammatory functions, taurine is important to neurotransmission, neuroregulation, and cardiac function, including heart rhythm and blood pressure.\(^8,9\) Taurine supplementation also increases GABA.\(^9\)

**L-Theanine** (N-ethyl-L-glutamine) L-Theanine, provided as Suntheanine\(^6\), is protected by more than 40 U.S. and international patents for its various physiological efficacies and L-isomer-specific production processes. A naturally-occurring, biologically active, free-form amino acid, L-theanine gives green tea its characteristic taste. Although notable for its relaxation support, L-theanine also appears to display a pharmacology suggestive of a possible neuroprotective and cognitive-enhancing agent. Theanine lowers glutamate levels by preventing transport of glutamate's precursor, glutamine.\(^10\) It may also inhibit neurotransmission, cause inhibitory neurotransmission via glycine receptors, and thereby reduce neuronal overstimulation.\(^11\) L-theanine’s ability to relax the mind without inducing drowsiness has been documented by an increase in alpha wave activity during EEG recording.\(^12\)

**Magnesium** Sometimes referred to as the relaxation mineral and mainly found in the brain, bones, and muscles, magnesium assists in the transmission of nerve impulses and is essential to more than 300 enzymatic reactions in the body. Magnesium supplementation has been shown to improve mood and overall scores on the Menstrual Distress Questionnaire,\(^13\) a method for measuring cyclical perimenstrual symptoms.
**Supplement Facts**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount Per Serving</th>
<th>%Daily Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium (as Di-Magnesium Malate)</td>
<td>75 mg</td>
<td>19%</td>
</tr>
<tr>
<td>Inositol (as myo-inositol)</td>
<td>2000 mg</td>
<td>**</td>
</tr>
<tr>
<td>Taurine</td>
<td>500 mg</td>
<td>**</td>
</tr>
<tr>
<td>GABA (gamma-aminobutyric acid)</td>
<td>100 mg</td>
<td>**</td>
</tr>
<tr>
<td>L-Theanine (Suntheanine®)</td>
<td>50 mg</td>
<td>**</td>
</tr>
</tbody>
</table>

**Other Ingredients:** Natural cherry flavor, malic acid, citric acid, natural beet color, stevia, and silica. Di-Magnesium Malate covered by Albion Laboratories, Inc. U.S. Patent 6,706,904 and patents pending.

**Directions**

Dissolve one scoop of CALMind powder into 6 fluid ounces of cool, pure water. Drink one to four times daily, or as directed by your healthcare practitioner.

**References**


**Cautions**

Consult your healthcare practitioner before use. Keep out of reach of children. Avoid if allergic to any ingredient.

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.