

Magtein®

BRAIN HEALTH

6 Functional Categories

Mood
Calm
Sleep
Memory
Focus
Brain Energy



In the United States, nearly one out of every four adults over the age of 70 has cognitive impairment and over one out of ten of those individuals progress to dementia every year. Nearly 47 million Americans have preclinical Alzheimer's disease with over 6 million Americans diagnosed with Alzheimer's disease. This is projected to increase to 15 million by 2060.

A primary cause of cognitive decline is synapse loss, or the connections between the neurons in the brain. Synapses help to code our memory and allow neurons to communicate with each other. The loss in synapses leads to memory loss and cognitive impairment. A reduction in magnesium levels in the brain may play a leading role in this loss of synapses. In fact, patients with Alzheimer's disease have been found to have low levels of magnesium in the brain.

A unique magnesium supplement called Magtein® (magnesium L-threonate) has been shown to increase brain levels of magnesium and functional neuronal terminals compared to other magnesium supplements including magnesium citrate, gluconate, malate and glycinate in animal studies. Furthermore, Magtein® also has been shown to prevent synaptic loss and reverse cognitive deficits in Alzheimer's disease animal models. In patients with cognitive impairment, Magtein® was shown to significantly improve overall cognitive ability and reverse the equivalent of 9 years of brain aging. Magtein® has also been shown to improve the MMSE score in patients with mild to moderate probable Alzheimer's disease.

Thus, Magtein® is a unique "brain boosting" magnesium supplement that has been shown to improve memory and cognition in those with cognitive impairment.

formula

Magtein® MOOD BOOST

Millions of Americans suffer with mental disorders or complain of having an “altered mood”. In many instances, these alterations in mood can be contributed to reductions in the amount of serotonin in the brain. Serotonin is an important neurotransmitter that supports feelings of happiness and a lack of serotonin in the brain has been suspected to be a leading cause of altered mood.

Magtein® is a unique magnesium supplement that has been shown to increase brain magnesium levels, which is required for the production of serotonin in the brain.

5-hydroxytryptophan (5-HTP) provides the substrate for serotonin further increasing serotonin levels in the brain. Hence, combining both Magtein® and 5-HTP is the perfect “serotonin boost” to help support a healthy mood.

formulas at a glance

Target population: Patients with altered mood



Dose:
1-2 grams

Mechanism of Action:
Increases magnesium in the brain which is needed to form serotonin in the brain.



5-HTP

Dose:
100-300 mg

Mechanism of Action:
The natural precursor to serotonin in the brain

Why it Works:
Increases serotonin levels in the brain.

Mood Formula 1 Magtein + 5-HTP

➔ Description

- Magtein® is a patented magnesium L-threonate supplement that is able to increase brain magnesium levels. It is known as the “brain magnesium”.
- 5-HTP, or 5-hydroxytryptophan, is an amino acid and a precursor to serotonin in the brain.

➔ Mechanism of Action

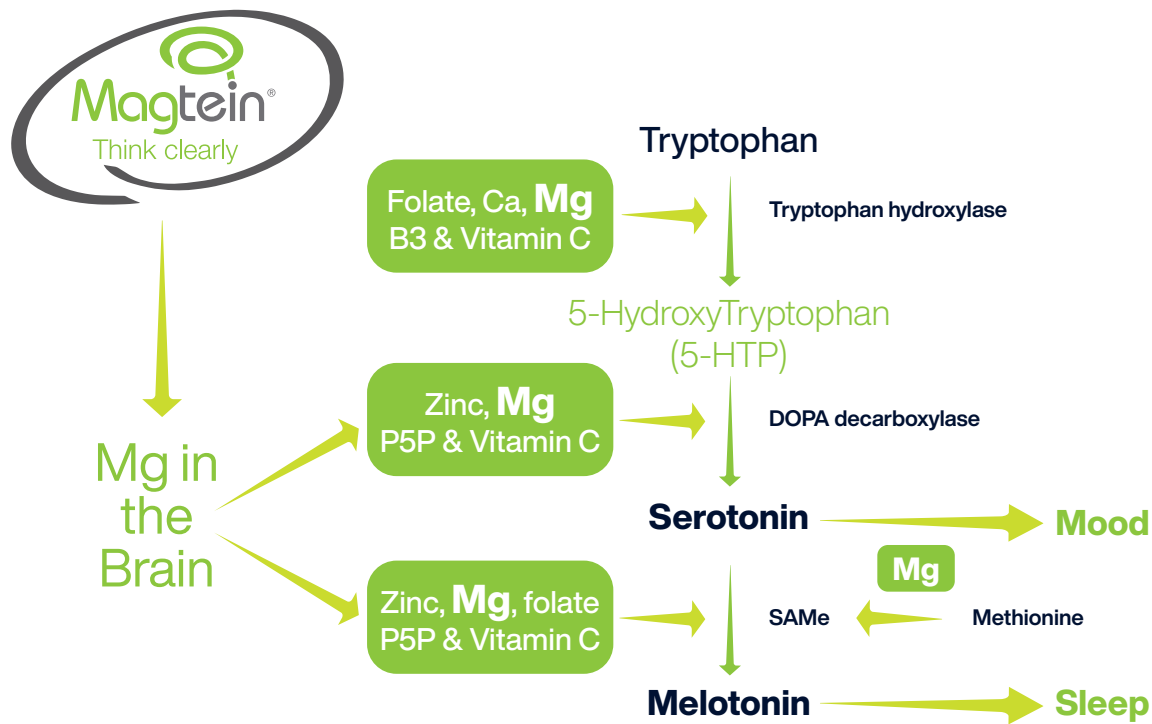
Magtein® increases brain magnesium levels, which helps increase the formation of serotonin and also increases neuronal synaptic function, density and plasticity via increasing NR2B subunits on NMDA receptors. Magnesium in the brain also helps oppose calcium-stimulated hyperexcitability in the brain.

5-HTP is a precursor to serotonin and needs magnesium in the brain to be converted into serotonin in the brain.

Serotonin is a ‘feel good’ neurotransmitter in the brain. Medications that treat depression many times work by blocking serotonin re-uptake and thus artificially elevating brain serotonin levels.

Magtein® + 5-HTP naturally increases the precursor to serotonin (5-HTP) and magnesium in the brain (Magtein®), which is needed to convert 5-HTP to serotonin.

Magtein® + 5-HTP = SEROTONIN SYNERGY



Dose:

Magtein 1-2 grams.
5-HTP 200 mg.

Safety:

Very good safety data, may cause mild gastrointestinal upset.

Benefit:

Increases serotonin levels in the brain.

Claims:

Supports mood.

Supports normal brain function.

Supports healthy serotonin levels.

Clinicals

- Two human clinical studies showed that 5-HTP is better than placebo at alleviating depression, the number needed to treat was 2.78.¹
- A meta-analysis of 7 human clinicals concluded, "...large positive effects of using oral 5-HTP supplementation to treat depression...most reported high remission rates... the effect size for change in symptom severity was large, with a mean drop in Hamilton Rating Scale for Depression scores of 12.7 points."²
 - A difference of 12 points is consistent with a decline in score from severe depression to a healthy range. Better remission rates were observed with longer treatment duration.
- 5-HTP has been shown to be equally effective as the antidepressant fluoxetine (Prozac®).³
 - The benefits take approximately two weeks to start, although other studies have shown quicker effects. The study started out with 5-HTP at 150 mg (in 3 divided doses) per day and increased to 300 mg/day (in 3 divided doses) after two weeks with many patients improving at this dose and then increased to 400 mg/day after the 4th week.
- 5-HTP from 50-300 mg/day significantly improved depression in 69% of patients with no side effects reported.³