

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® SLEEP

Millions of Americans suffer from sleep disorders. The most typical complaints include difficulty falling asleep, staying asleep and not feeling refreshed in the morning. Sleep is not only important for our overall health but also for our immune health.

Magtein® helps to promote good sleep by supporting the enzymes needed to synthesize melatonin in the brain. By combining Magtein® with melatonin you synergistically improve melatonin levels. Other ingredients that can be combined with Magtein® besides melatonin include 5-HTP and GABA.

Magtein® is a brain bioavailable magnesium.

Melatonin is a sleep hormone secreted by the pineal gland at night.

5-HTP, or 5-hydroxytryptophan, is an amino acid and a precursor to serotonin and melatonin in the brain

GABA – gamma amino butyric acid is a calming neurotransmitter and naturally occurring amino acid in the brain

formulas at a glance

Target population: People who have difficulty falling or remaining asleep.



Dose:
1-2 grams

Mechanism of Action:
Supports the enzymes in the brain needed to make melatonin.



Melatonin

Dose:
1-5 grams

Mechanism of Action:
Melatonin helps us fall asleep at night

Why it Works:
Increases melatonin levels in the brain and stimulates GABA receptors.

5-HTP

Dose:
50-100 mg

Mechanism of Action:
5-HTP is the precursor to serotonin, which is the precursor to melatonin in the brain

Why it Works:
Increases melatonin levels in the brain and stimulates GABA receptors.

+/-

GABA

Dose:
50-100 mg

Mechanism of Action:
GABA is a calming and relaxing neurotransmitter in the brain

Why it Works:
Increases melatonin levels in the brain and stimulates GABA receptors.

Sleep Formula 1 Magtein® + Melatonin

Description

- + Magtein® is a brain bioavailable magnesium that helps to increase the synthesis of brain melatonin levels and stimulates GABA receptors for a relaxing effect.
- + Melatonin is a sleep hormone secreted by the pineal gland at night.

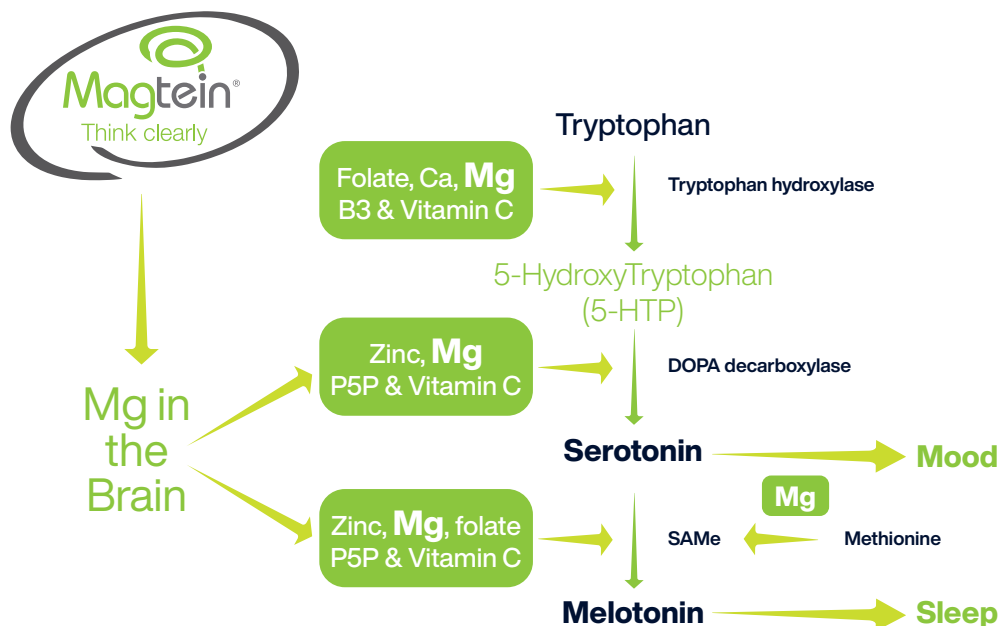
Mechanism of Action

Magtein® increases brain magnesium levels which are required to synthesize melatonin in the brain. Magnesium can bind and stimulate GABA receptors.⁴ GABA is an inhibitory neurotransmitter that helps with relaxation.

Magnesium reduces the release of adrenocorticotrophic hormone (ACTH) and lowers cortisol release.⁵

Melatonin is a hormone secreted at night that helps with sleep.

Magtein® + Melatonin = SYNERGY



Dose:

Magtein 1-2 grams.
Melatonin 1-5 mg.

Safety:

Melatonin has been shown to be safe for at least 3 months¹⁸.

Benefit:

Increases melatonin levels in the brain and stimulates GABA receptors.

Claims:

Supports sleep.
Relaxes the mind.

Clinicals

Melatonin

1. A systematic review and meta-analysis of nineteen studies in 1,683 patients¹⁷
 - a. Melatonin demonstrated significant efficacy in reducing sleep latency and increasing total sleep time.
 - b. Trials with longer duration and using higher doses of melatonin demonstrated greater effects on decreasing sleep latency and increasing total sleep time.
 - c. Overall sleep quality was significantly improved in subjects taking melatonin compared to placebo.

Sleep Formula 2 Magtein® + 5-HTP (+/-) GABA



Description

- ✚ Magtein® is a brain bioavailable magnesium that helps to increase the synthesis of brain melatonin levels and stimulates GABA receptors for a relaxing effect.
- ✚ 5-HTP, or 5-hydroxytryptophan, is an amino acid and a precursor to serotonin and melatonin in the brain.
- ✚ GABA – gamma amino butyric acid is a calming neurotransmitter and naturally occurring amino acid in the brain



Mechanism of Action

Magtein® increases brain magnesium levels which are required to synthesize melatonin in the brain.

Magnesium can bind and stimulate GABA receptors.⁴ GABA is an inhibitory neurotransmitter that helps with relaxation.

Magnesium reduces the release of adrenocorticotrophic hormone (ACTH) and lowers cortisol release.⁵

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

Magtein® + 5-HTP naturally increases the precursor to melatonin (serotonin)

GABA is a calming neurotransmitter in the brain

Dose:

Magtein 1-2 grams.

5-HTP 50 mg/day.

GABA 50 mg/day.

Safety:

No adverse events reported in the trial.

Benefit:

Increases melatonin levels in the brain and stimulates GABA receptors.

Claims:

Supports sleep.

Relaxes the mind.

Clinicals

1. An amino acid preparation containing 5-HTP + GABA in randomized, double-blind, placebo-controlled trial in ¹⁸ patients with sleep disorders
 - a. Reduced time to fall asleep, decreased sleep latency, increased the duration of sleep, and improved quality of sleep.¹⁹