

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® FOCUS

Millions of Americans suffer from a lack of focus or concentration. This can impair work or school productivity and can also lead to behavioral issues. Maintaining focus throughout the day is important. Having good concentration and focus is also necessary for anyone who performs any type of mentally challenging activity.

Magtein® is a unique brain-boosting magnesium supplement that helps to strengthen the synapses in the brain, which may help to improve focus and concentration. Other ingredients that work synergistically with Magtein® to support focus include:

Bacomind® increases antioxidant enzymes in the brain and reduces the breakdown of acetylcholine in the brain.

Alpha-GPC increases the synthesis and release of the neurotransmitter acetylcholine in the brain (hippocampus, frontal cortex and striatum) which helps with memory.

L-theanine increases alpha-waves in the brain and stimulating GABA receptors.

formulas at a glance

Target population: Young health professional, adults with difficulty concentrating, college students



Dose:
1-2 grams

Mechanism of Action:
Magtein® increases brain magnesium levels and helps to support focus by increasing synapses in the brain.



Bacomind®

Dose:
300-450 mg

Mechanism of Action:
Increases antioxidant enzymes in the brain and reduces the breakdown of acetylcholine in the brain.

Why it Works:
Increases antioxidant enzymes in the brain, protects brain from oxidative stress, may reduce breakdown of acetylcholine, may lower amyloid-beta proteins in the brain and has neuroprotectant properties. Improves ADHD symptoms.

Alpha-GPC

Dose:
400 mg three times daily or 800 mg morning 400 mg evening

Mechanism of Action:
Increases the synthesis and release of acetylcholine in the brain. Increases neuronal membrane fluidity.

Why it Works:
Increases the synthesis and release of acetylcholine in the brain. Increases neuronal membrane fluidity.

L-theanine

Dose:
100 mg

Mechanism of Action:
Increases alpha waves in the brain, which helps with focus and stimulates GABA receptors to provide a calming effect.

Why it Works:
Increases alpha waves in the brain and stimulates GABA receptors.

Focus Formula 1 Magtein® + Bacomind®



Description

+ Magtein® brain bioavailable magnesium L-threonate.

+ Bacomind®²⁶

Patented clinically tested nootropic plant (perennial herb) called bacopa monnieri.

Contains substances called bacosides, which are made-up of saponins.

Contains 9 bioactives from Bacopa.



Mechanism of Action

Magtein® Magtein increases brain magnesium levels, which increases neuronal synaptic density, function and plasticity. Magtein® has been shown to improve memory and cognition in those with mild cognitive impairment.²⁰

Bacomind® Increases antioxidant enzymes in the brain (superoxide dismutase, catalase and glutathione peroxidase).²⁷

Protects the brain from oxidative stress (including smoking)

Scavenges free radicals and protects lipids from oxidation, including smoking²⁸ and nicotine²⁹

May reduce the breakdown of acetylcholine via anticholinesterase inhibiting properties.³⁰

In animal-models of Alzheimer's disease it lowers the levels of amyloid-beta proteins.³¹

Dose:

Magtein 1-2 grams.

Bacomind® Adults: 300-450 mg/day Children: 225 mg/day

Safety:

No safety issues.

Benefit:

Increases antioxidant enzymes in the brain, protects brain from oxidative stress, may reduce breakdown of acetylcholine, may lower amyloid-beta proteins in the brain and has neuroprotectant properties. Improves ADHD symptoms.

Claims:

Supports focus.

Supports memory.

Supports learning.

Clinicals

Animals

Improves learning and memory in mice.³²

4 Human Clinicals on Efficacy

1. Population: 28 children requiring individual education program with Intelligent Quotient between 70-90³³
 - a. Bacomind® 225 mg as single oral dose for a duration of four months
 - b. Significant improvements in working memory and short-term verbal memory in 70.83% of study population.
 - c. Results: Significant improvement was also seen in logical memory, memory related to personal life and also in visual as well as auditory memory.
 - d. BacoMind® was also found to be well tolerable with no major side effects.³³
2. Patient Population: ADHD children between the ages of 6-12 years, with an age of onset of ADHD before 7 y of age.³⁴
 - a. Bacomind® 225 mg once daily for 6 months
 - b. Results: Significantly reduced the subtests scores of ADHD symptoms. The symptom scores for restlessness were reduced in 93% of children, whereas improvement in self-control was observed in 89% of the children. Similarly, symptom scores for learning problems, impulsivity, and psychiatric problems were reduced for 78%, 67%, and 52% of children, respectively.³⁴
3. Patient Population: Elderly individuals with MMSE score of 24 and above were enrolled.³⁵
 - a. BacoMind® or placebo was given as a single oral dose of 450 mg daily for the duration of 12 weeks.
 - b. BacoMind® improved performance in tests associated with attention and verbal memory in elderly participants.
4. Patient Population: 98 healthy participants over 55 years of age³⁶
 - a. BacoMind® 300 mg/day
 - b. Bacomind® significantly improved verbal learning, memory acquisition, and delayed recall.

Focus Formula 2 Magtein® + Alpha-GPC



Description

- + Magtein® is a brain bioavailable magnesium called magnesium L-threonate.
- + Alpha-GPC or alpha-glycerophosphocholine, use to be known as choline alfoscerate is a choline containing supplement.



Mechanism of Action

Magtein® Magtein increases brain magnesium levels, which increases neuronal synaptic density, function and plasticity. Magtein® has been shown to improve memory and cognition in those with mild cognitive impairment.²⁰

Alpha-GPC Increases the synthesis and release of the neurotransmitter acetylcholine in the brain (hippocampus, frontal cortex and striatum) which helps with memory.

An older name for alpha-GPC was choline alfoscerate.

Increases neuronal membrane fluidity.

Alpha-GPC was compared with CDP-choline in 2 multicenter, randomized, controlled studies among patients with multi-infarct dementia. Both investigations showed significant improvements in most neuropsychological and behavioral instruments in the alpha-GPC recipients compared with CDP-choline recipients; both drugs were well tolerated.²⁴

Dose:

Magtein 1-2 grams.

Alpha-GPC 1,200 mg/day.

Safety:

No safety concerns.

Benefit:

Increases the synthesis and release of acetylcholine in the brain. Increases neuronal membrane fluidity.

Claims:

Supports memory.

Supports learning.

Supports healthy neurons.

Clinicals

1. Alpha GPC (choline alfoscerate) at 400 mg three times daily
 - a. Supplementation of Alpha-GPC at 400mg three times daily (1,200mg daily) for 180 days in persons with mild to moderate Alzheimer's disease was able to improve symptoms as assessed by a multitude of rating scales including ADAS, MMSE, CDI, and GDS.²⁵

2. Alpha-GPC 800 mg in morning and 400 mg at 4PM in probable Alzheimer's disease with clinical onset after 65 years of age (senile dementia of Alzheimer's type).
 - a. Significantly improved MMSE scores, verbal memory (as assessed by Rey's 15-word test), immediate and delayed recall scores, intellectual and emotional impairments, 'affective disorders', 'apathy', 'somatic functioning', as well as the item 'overall impression'.²⁴

Focus Formula 3 Magtein® + L-theanine



Description

- ✚ Magtein® is a brain bioavailable magnesium.
- ✚ L-theanine is a non-protein amino acid found in both green and black tea.



Mechanism of Action

Magtein® Magtein increases brain magnesium levels, which increases neuronal synaptic density, function and plasticity. Magtein® has been shown to improve memory and cognition in those with mild cognitive impairment.²⁰

L-theanine⁸ Crosses the blood brain barrier within 30 minutes after consumption directly impacting the brain

50 mg of L-theanine increases activity in the alpha-1 frequency band of resting brain activity, which indicates that it relaxes the mind without inducing drowsiness.

An increase in the activity of alpha-bands also appears important for suppressing distracting visual information during demanding tasks. Thus, L-theanine may also help with focus.

Dose:

Magtein 1-2 grams.

L-theanine 100 mg.

Safety:

No safety issues reported in the clinicals.

Benefit:

Increases alpha waves in the brain and stimulates GABA receptors.

Claims:

Supports stress.

Relaxes the mind.

Helps with focus.

Clinicals

1. L-theanine - 97 mg of L-theanine and 40 mg caffeine vs. placebo significantly improves accuracy during task switching and self-reported alertness and reduced self-reported tiredness. L-theanine in combination with caffeine helps to focus attention during a demanding cognitive task.³⁷