



# Magtein®

Support for Cognitive Health  
and Brain Function♦

The brain naturally undergoes gradual structural and functional changes as we age. We see shrinking brain volume after age 25 when brain growth peaks. While cognitive decline had been an accepted result of aging, we have recently found that the adult brain is capable of a greater degree of plasticity.

Our diet, lifestyle, and stress all contribute to our cognitive health. Magnesium is of particular importance as it has long been known as a key nutrient for optimal brain function, promoting learning and memory. While there are many forms of magnesium available, one has been shown to cross the blood-brain barrier and support neurological health.♦

Magtein® (magnesium L-threonate) is a unique, patented form of magnesium resulting from 10 years of research at MIT. It is the only form of magnesium shown to cross the blood-brain barrier, effectively increasing magnesium concentration in the brain.♦

## How Magtein® Works

Unlike other brain-boosting supplements that often overstimulate the brain, Magtein® works by nourishing the synapses with magnesium, keeping them healthy without over-stimulation. The nourishing effects of Magtein® can help your brain think clearly and maintain resiliency.♦

Magnesium is an essential cofactor for more than 300 enzymes involved in biosynthesis processes and energy metabolism. Magnesium has been implicated in many of the brain's functions. However, most magnesium compounds have low brain bioavailability and gastrointestinal side effects.

Magtein® is the only magnesium compound that has been shown to effectively raise the brain's magnesium levels, which leads to enhanced learning abilities, working memory, and short- and long-term memory in both young and aged animals.<sup>1</sup> Through a number of pre-clinical studies, Magtein® shows great promise in improving memory, alleviating anxiety, and supporting cognitive health.♦

## Magtein® Supplementation

In summary, clinical research suggests the benefits of Magtein® supplementation may include:

- Supports healthy synaptic density and function♦
- Supports a healthy stress response and a healthy mood♦
- Supports cognitive health, focus, and attention♦



Form: 90 Capsules

Serving Size: 3 Capsules

Ingredients	Amount	%DV
Magnesium (as magnesium l-threonate) <sup>†</sup>	144 mg	34%
Magnesium L-Threonate <sup>†</sup>	2 g	**

### Ingredients:

Vegetable capsule, microcrystalline cellulose, vegetable magnesium stearate, silicon dioxide.

<sup>†</sup> as Magtein®

Magtein® is a trademark of Magceutics®, Inc. and is distributed exclusively by AIDP, Inc.

Magtein® is protected under a family of US patents, pending patents, and is protected worldwide.

### Directions:

Take three capsules in divided doses daily: one capsule in the morning and two capsules two hours before bed as a dietary supplement, or as directed by your healthcare practitioner.

**Caution:** If you are pregnant, nursing, or taking medication, consult your healthcare practitioner before use. Keep out of reach of children.



GLUTEN-FREE



DAIRY-FREE



VEGETARIAN



NON-GMO



PRODUCED IN A  
cGMP FACILITY

♦ 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.

## Magtein® Research

Magnesium concentration in the cerebrospinal fluid was evaluated following treatment of different magnesium compounds available, including Magtein®; the most bioavailable inorganic magnesium, magnesium chloride; and the most bioavailable organic magnesium, magnesium gluconate, found in milk. After 24 days, Magtein® was the only magnesium compound to raise the cerebrospinal fluid magnesium concentration with statistical significance.<sup>1</sup>

## Magtein® Supports Cognitive Health\*

The cognitive effects of Magtein® were studied by Liu et al. in a randomized, double-blind, placebo-controlled trial (n=15).<sup>2</sup> At a dose of 1.5 g/d to 2 g/d (25 mg/kg/d) for 12 weeks, patients 50-70 years of age taking Magtein® demonstrated reduced cognitive declines compared to age-matched controls. Furthermore, the researchers calculated a particularly compelling impact of Magtein® using normative TMT-B data from age-matched subjects: After six weeks of treatment, the average brain age of the Magtein® group decreased from  $69.6 \pm 4.2$  years to  $60.6 \pm 5.6$ , an improvement of  $9.0 \pm 3.5$ , and persisted after 12 weeks of treatment with  $9.4 \pm 3.5$  years improvement. The data of several animal studies have supported these clinical benefits.

## Magtein® Supports Memory\*

Only Magtein® significantly enhanced both short- and long-term memory, boosting scores by 15% for short-term memory and 54% for long-term memory compared to magnesium citrate. Supplementation also increases the number of functioning neurotransmitter release sites.<sup>1</sup>

### References:

1. Liu G, Weinger JG, Lu ZL, et al. Efficacy and safety of mmfs-01, a synapse density enhancer, for treating cognitive impairment in older adults: a randomized, doubleblind, placebo-controlled trial. *J Alzheimers Dis.* 2015 Oct 27;49(4):971-90. [PMID:26519439]
2. Slutsky I, Abumaria N, Wu LJ, et al. Enhancement of learning and memory by elevating brain magnesium. *Neuron.* 2010 Jan 28;65(2):165-77.