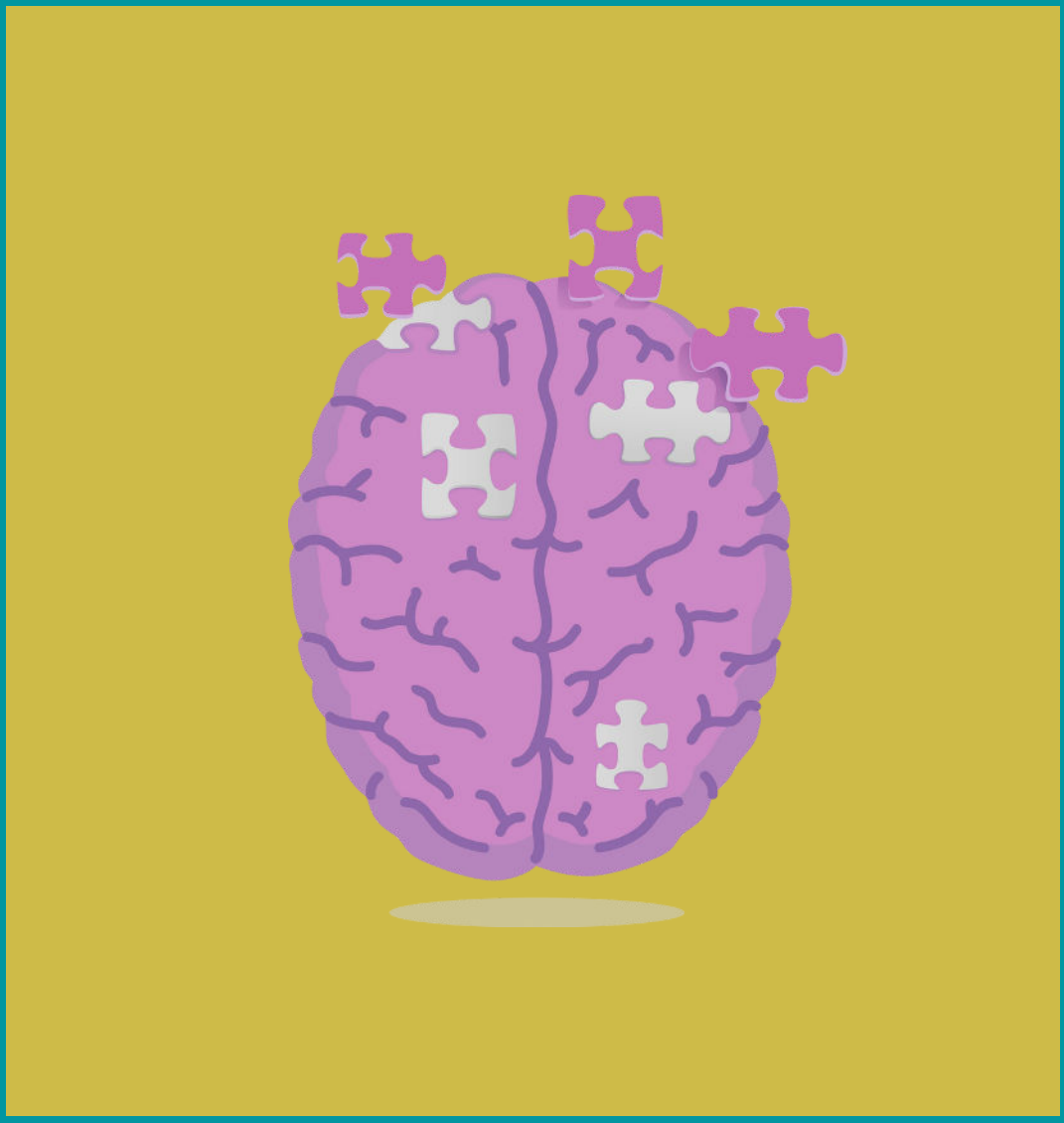
ALZHEIMER'S AWARENESS



Magnesium and Brain Health

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Magnesium and Brain Health

Magnesium, an essential mineral, plays a pivotal role in safeguarding the health of our brain and promoting optimal cognitive function. Its multifaceted benefits extend to neuroprotection and beyond:

BRAIN HEALTH BENEFITS

Neuroprotective Properties:

- Magnesium has neuroprotective properties, meaning it helps protect brain cells (neurons) from damage and supports their overall health. This protection may contribute to the prevention of age-related cognitive decline.

Regulation of Neurotransmitters:

- Magnesium plays a role in the regulation of neurotransmitters, which are chemical messengers that transmit signals in the brain. Balanced neurotransmitter activity is crucial for mood, memory, and cognitive function.

Anti-Inflammatory Effects:

- Chronic inflammation is believed to play a role in neurodegenerative conditions like Alzheimer's disease. Magnesium has anti-inflammatory properties, and maintaining an appropriate level of magnesium may help reduce inflammation in the brain.

Vasodilation and Blood Flow:

- Magnesium supports vasodilation, the relaxation of blood vessels. Proper blood flow is essential for delivering oxygen and nutrients to brain cells. By promoting healthy blood flow, magnesium may support brain function.

Regulation of Calcium Levels:

- Magnesium helps regulate calcium levels in the brain. Calcium is essential for neurotransmission, but excessive calcium can be toxic to neurons. Magnesium helps maintain calcium at appropriate levels, preventing calcium-induced neuronal damage.

Blood-Brain Barrier Integrity:

- The blood-brain barrier (BBB) is a protective barrier that separates the bloodstream from the brain. Magnesium may help maintain the integrity of the BBB, ensuring that harmful substances do not easily enter the brain.

NMDA Receptor Function:

- Magnesium plays a role in the function of N-methyl-D-aspartate (NMDA) receptors, which are involved in learning and memory. Proper NMDA receptor function is essential for cognitive processes.

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Magnesium

Along with neuroprotective qualities, magnesium also supports muscle and nerve function, regulates blood sugar levels and promotes heart health. Magnesium can also be obtained from food sources.

HEALTH BENEFITS

Supports healthy bones:

- Activates vitamin D which helps regulate calcium and phosphorus levels critical to bone health.
- Maintain bone density and strength throughout life. More than 50% of the magnesium in your body is found in your bones.

Reduces inflammation:

- Magnesium has anti-inflammatory effects that can help reduce swelling, joint pain, and muscle soreness.
- Especially beneficial for athletes who exercise regularly or have intense workouts.
- Chronic inflammation is believed to play a role in neurodegenerative conditions like Alzheimer's disease.

Supports cardiovascular health:

- Magnesium helps maintain healthy blood pressure levels by relaxing arterial walls and improving circulation.
- May also boost HDL (good) cholesterol levels while helping reduce LDL (bad) cholesterol levels in people with high cholesterol.

Regulates blood sugar levels:

- Studies have shown that magnesium can help regulate insulin sensitivity which leads to better management of glucose levels in the bloodstream.
- Helpful for people with diabetes or prediabetes who need to keep their blood sugar under control.

Enhances mood:

- Research suggests that supplementing with extra magnesium may be beneficial for those struggling with depression or anxiety disorders.
- Plays an important role in serotonin production, a neurotransmitter that helps regulate moods in the brain.

Promotes Sleep:

- Magnesium regulates several neurotransmitters that impact sleep.
- Studies suggest that higher levels of magnesium may promote better sleep quality.

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Magnesium

FOOD SOURCES








- **Pumpkin seed kernels:** Serving Size 1 oz, 168 mg
- **Almonds, dry roasted:** Serving Size 1 oz, 80 mg
- **Spinach, boiled:** Serving Size ½ cup, 78 mg
- **Cashews, dry roasted:** Serving Size 1 oz, 74 mg
- **Pumpkin seeds in shell:** Serving Size 1 oz, 74 mg
- **Peanuts, oil roasted:** Serving Size ¼ cup, 63 mg
- **Cereal, shredded wheat:** Serving Size 2 large biscuits, 61 mg
- **Soymilk, plain or vanilla:** Serving Size 1 cup, 61 mg
- **Black beans, cooked:** Serving Size ½ cup, 60 mg
- **Edamame, shelled, cooked:** Serving Size ½ cup, 50 mg
- **Dark chocolate -60-69% cacao:** Serving Size 1 oz, 50 mg
- **Peanut butter, smooth:** Serving Size 2 tablespoons, 49 mg
- **Bread, whole wheat:** Serving Size 2 slices, 46 mg
- **Avocado, cubed:** Serving Size 1 cup, 44 mg
- **Potato, baked with skin:** Serving Size 3.5 oz, 43 mg
- **Rice, brown, cooked:** Serving Size ½ cup, 42 mg
- **Yogurt, plain, low fat:** Serving Size 8 oz, 42 mg
- **Breakfast cereals fortified:** Serving Size 10% fortification, 40 mg
- **Oatmeal, instant:** Serving Size 1 packet, 36 mg
- **Kidney beans, canned:** Serving Size ½ cup, 35 mg
- **Banana:** Serving Size 1 medium, 32 mg
- **Cocoa powder– unsweetened:** Serving Size 1 tablespoon, 27 mg
- **Salmon, Atlantic, farmed:** Serving Size 3 oz, 26 mg
- **Milk:** Serving Size 1 cup, 24–27 mg
- **Halibut, cooked:** Serving Size 3 oz, 24 mg
- **Raisins:** Serving Size ½ cup, 23 mg
- **Chicken breast, roasted:** Serving Size 3 oz, 22 mg
- **Beef, ground, 90% lean:** Serving Size 3 oz, 20 mg
- **Broccoli, chopped & cooked:** Serving Size ½ cup, 12 mg

RECOMMENDED DIETARY ALLOWANCE

400–420 mg per day for men and 310–360 mg per day for women

*Retrieved from www.my.clevelandclinic.org/health/articles/15650-magnesium-rich-food
**Retrieved from www.ods.od.nih.gov/factsheets/Magnesium-HealthProfessional/

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Magnesium L-Threonate

Magnesium L-threonate is a form of magnesium that is specially designed to cross the blood-brain barrier. This means that it can deliver magnesium directly to the brain, where it is needed.

ALZHEIMER'S DISEASE

Alzheimer's disease is a neurodegenerative disorder that is characterized by the loss of brain cells. One of the hallmarks of Alzheimer's disease is the accumulation of amyloid plaques in the brain. Amyloid plaques are made up of a protein called amyloid beta.

Magnesium L-threonate has been shown to improve cognitive function in people with Alzheimer's disease.

A study published in the journal Nature Medicine found that magnesium L-threonate reduced the formation of amyloid plaques in the brain and improved cognitive function in mice.

Another study, published in the journal Alzheimer's & Dementia, found that magnesium L-threonate improved cognitive function in people with mild to moderate Alzheimer's disease with improved memory and thinking skills.

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Magnesium L-Threonate

Benefits

ALZHEIMER'S DISEASE

- **Neuroprotection:** It can help regulate calcium levels within neurons, which may protect against neurodegeneration.
- **Cognitive Enhancement:** Some animal studies have suggested that magnesium L-threonate supplementation may improve cognitive function, memory, and learning abilities.
- **Reduction in Amyloid Plaques:** Preliminary research has indicated that magnesium L-threonate may help reduce the buildup of amyloid plaques, a hallmark feature of Alzheimer's disease.
- **Improved Synaptic Plasticity:** Magnesium plays a crucial role in synaptic plasticity, which is essential for learning and memory.
- **Reduced Neuroinflammation:** Magnesium L-threonate may have anti-inflammatory properties that could potentially benefit individuals with AD.

Magnesium L-Threonate

Additional Adjuncts

ALZHEIMER'S DISEASE

Diet Considerations:

Intermittent Fasting: Fasting supports autophagy, Brain-Derived Neurotrophic Factor (BDNF), blood sugar regulation and a reduction in oxidative stress and inflammation.
Mediterranean Diet: A Mediterranean-style diet, rich in fruits, vegetables, whole grains, fish, and olive oil, has been associated with a reduced risk of cognitive decline. It includes antioxidants and healthy fats that may support brain health.
Antioxidant-Rich Foods: Foods high in antioxidants, such as berries, leafy greens, and nuts, may help protect brain cells from oxidative stress.
Omega-3 Fatty Acids: Fish oil supplements or fatty fish like salmon, mackerel, and sardines are rich in omega-3 fatty acids, which may have a neuroprotective effect.

Supplements:

Ginkgo Biloba: May help improve cognitive function.
Turmeric (Curcumin): Has anti-inflammatory and antioxidant properties that may be beneficial for brain health.
Panax Ginseng: Potential cognitive benefits.
Vitamin E: An antioxidant, has been studied for its potential to slow the progression of Alzheimer's disease.
Vitamin B12: Some individuals with Alzheimer's disease may have a deficiency in vitamin B12, and supplementation can help if this deficiency is present.
Folate: Adequate folate intake is important for brain health. Leafy greens, beans, and fortified cereals are good dietary sources.
Additional supplements to consider: Resveratrol, Acetyl Carnitine , Ashwagandha, Bacopa and Fisetin.

Magnesium L-Threonate

Additional Adjuncts

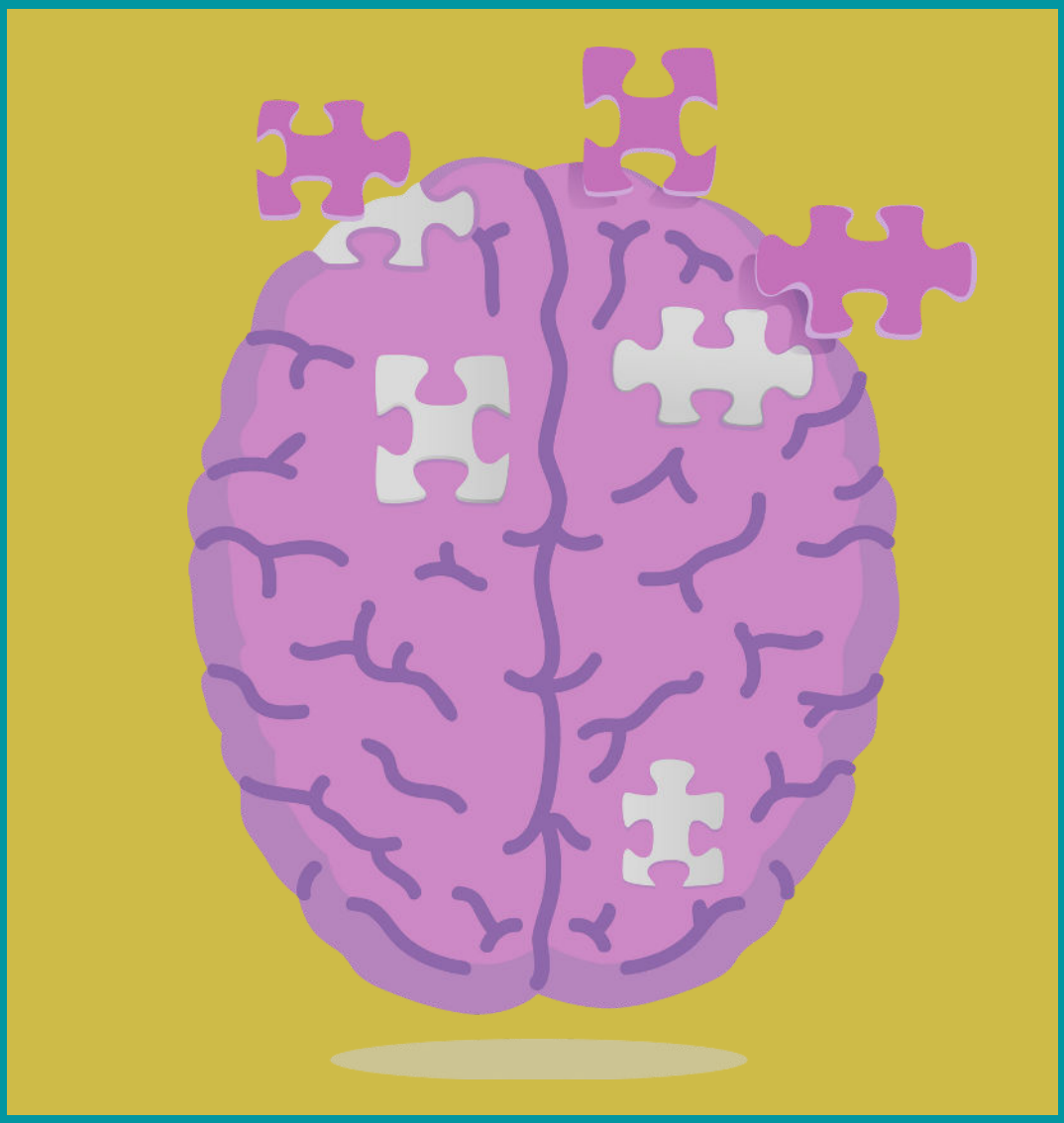
ALZHEIMER'S DISEASE

Exercise:
Regular physical activity can improve blood flow to the brain, promote the formation of new neurons, and enhance overall cognitive function.

Mental Stimulation:
Engaging in mentally stimulating activities like puzzles, reading, and learning new skills can help maintain cognitive abilities.

Sleep:
Quality sleep is essential for cognitive health. Addressing sleep disorders or disturbances can be beneficial.

Stress Management:
Chronic stress may contribute to cognitive decline. Stress-reduction techniques
like meditation, yoga, and relaxation exercises can be helpful.



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