

Acetyl L-Carnitine



Brain Energizer and Revitalizer

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Designs for Health's Acetyl L-Carnitine provides 800 mg of this valuable nutrient per capsule. Acetyl L-carnitine is one of the most extensively researched brain nutrients with a proven ability to enhance mental energy and wellness. Research shows acetyl L-carnitine:

1. Energizes the brain
2. Increases levels of important neurotransmitter chemicals needed for memory, focus, and learning
3. Repairs the damage done to brain cells caused by stress and poor nutrition.

These three benefits show that acetyl L-carnitine dramatically improves mental focus and energy.

Signs of inadequate acetyl L-carnitine intake include:

- Mental fatigue
- Depression
- Short attention span
- Decreased memory and learning ability

Acetyl L-carnitine is a natural component of our brain's chemistry. The body makes it in small amounts, but as we age, acetyl L-carnitine levels decline. For optimal brain function, therefore, supplementation of acetyl L-carnitine may be highly beneficial. The only food source for this nutrient is animal brain, which is not a recommended food. Supplemental acetyl L-carnitine, on the other hand, is synthetically derived from other amino acids, and is suitable for vegetarians.

Memory and Cognition

Studies show that acetyl L-carnitine slows or prevents age related decline in mental function.¹ 1.5 g/day of acetyl L-carnitine given to 236 older adults for forty-five days significantly increased the effectiveness of performance on all the measures of cognitive functioning, memory performance, and constructional thinking.² Twenty adults given 1.5 g of acetyl L-carnitine experienced reversal of many of the signs of brain aging.³ Alcoholics with cognitive impairment have also benefited from acetyl L-carnitine supplementation.⁴ Acetyl L-carnitine supplementation has well-documented neuroprotective effects and has been shown to maintain or increase acetylcholine levels in brain, which supports neuroplasticity and reduces brain inflammation.⁵ Acetylcholine is a neurotransmitter crucial for learning and memory.

Depression

Acetyl L-carnitine is one of the most valuable compounds for relieving depression naturally.^{6,7} It does so through increasing the energy of brain cells. Energy allows brain cells to communicate better, and a social brain is a happier brain. Acetyl L-carnitine also increases levels of compounds such as acetylcholine, which is essential for healthy mood levels. A review of human, animal and cellular models suggests acetyl L-carnitine is effective at improving depressive symptoms and supports neuroplasticity.⁶ A meta-analysis indicates acetyl L-carnitine supplementation significantly decreased depressive symptoms compared to placebo or no intervention and has fewer side effects than antidepressant medications.⁷

Speeding Stroke Recovery

In a study looking at acetyl L-carnitine and stroke, 160 patients who suffered strokes at least one year prior to receiving supplementation were given 1.5 g of acetyl L-carnitine per day for eight weeks. This led to increased speed of recovery, as well as improved mood and attention span.⁸

Alzheimer's Disease

A total of over 600 patients with Alzheimer's have been studied in over twenty years of research,⁹ confirming that acetyl L-carnitine benefits Alzheimer's patients.⁹⁻¹¹ Thirty Alzheimer's patients given acetyl L-carnitine for 6 months saw dramatically less mental deterioration.¹² One year treatment with acetyl L-carnitine in 130 patients with Alzheimer's also led to a slower rate of mental decline in 13 of the 14 outcome measures.¹³ Acetyl L-carnitine may also benefit the management of Parkinson's disease.¹⁴ In rat studies, acetyl L-carnitine has also been shown to improve age-related memory and learning impairments by activating synaptic function, and reducing cognitive deficits.¹⁵

Benefits of Acetyl L-Carnitine:

- Quickly improves mental focus and energy
- Enhances short- and Long-term memory
- Relieves depression
- Slows progression of Alzheimer's disease
- Protects the brain from stress
- Helps repair physically damaged nerves
- Helps stroke victims
- Helps prevent age-related memory deterioration
- Increases learning capacity
- Enhances immune function
- Improves female reproductive function

Helping Damaged Nerves and Diabetic Neuropathy

Animal models of sciatic nerve injury show that acetyl L-carnitine dramatically increases the speed of nerve healing and prevents loss of nerve function.¹⁶ Acetyl L-carnitine should be considered in all cases where physical injury to neurons occurs, including brain injuries from car accidents and other causes.¹⁷ Those with brain injuries report that acetyl L-carnitine, especially when combined with phosphatidylserine, significantly improves overall brain function, attention span, and learning ability. Acetyl L-carnitine has also been found to be helpful in the management of diabetic neuropathy,¹⁷ especially when combined with lipoic acid and GLA.

Acetyl L-carnitine may be beneficial for managing diabetic neuropathy due to its safety profile. Multiple studies have shown the benefits of acetyl L-carnitine for peripheral nerve disease, improved nerve conduction velocity, and nerve regeneration.¹⁸ One hundred seventeen patients with diabetic neuropathy were given 500 mg of acetyl L-carnitine three times per day for 24 weeks and safely and effectively improved their symptoms.¹⁹

Immune Enhancement

Acetyl L-carnitine has also been found to be a powerful immune enhancer. This is due to its ability to promote the health of the nervous system, which in turn governs the activity of the immune system. Acetyl L-carnitine may offer specific benefits to HIV patients^{20,21} and those with tuberculosis.²²

Supporting Female Reproductive Function

Several human and animal studies have shown acetyl L-carnitine improves female fertility and reproductive status by increasing energy production in the mitochondria, reducing oxidative stress, and reducing the rate of apoptosis which promotes oocyte growth and maturation.

Dosages in human trials ranged from 250 mg to 3000 mg daily. When combined with vitamin C, acetyl L-carnitine helps to enhance antioxidant function.²²

Common Questions about Acetyl L-Carnitine

- **When will an individual start feeling the benefits of acetyl L-carnitine?**
An increase in mental energy and focus may be noticeable within twenty minutes. For this reason, it should not be taken late in the day as it may delay falling asleep.
- **Are there any side effects to taking acetyl L-carnitine?**
Long term, there are no side effects, only benefits. This is because acetyl L-carnitine protects and helps to regenerate the brain. Acetyl L-carnitine is not a stimulant. It is a nutrient which naturally increases the energy of the brain.
- **Are there nutrients that help acetyl L-carnitine work more effectively?**
Phosphatidylserine, B vitamins, C vitamins, lipoic acid, phosphatidylcholine and EPA/DHA all increase the effectiveness of acetyl L-carnitine.

How to Use Acetyl L-Carnitine:

Recommended Use: Take one capsule per day, or as directed by your health care practitioner.

- **Increasing mental energy:** 700-2,000 mg
- **Relieving depression:** 700-2,000 mg
- **Immune enhancement:** 700-2,000 mg
- **Brain injuries and stroke:** 1,400-3,000 mg
- **Supporting Alzheimer's:** 2,000-3,000 mg

Acetyl L-Carnitine is energizing, so take no later than 4:00 p.m. Cofactor nutrients: Phosphatidylserine, B vitamins, lipoic acid, phosphatidylcholine, and EPA/DHA.

Contraindications: Epilepsy, manic depression

Supplement Facts

Serving Size 1 capsule

Amount Per Serving	% Daily Value
Acetyl L-Carnitine HCl	800 mg *

*Daily Value not established.

Other Ingredients: Cellulose (capsule), stearates (vegetable source), silicon dioxide.

For a list of references cited in this document, please visit:

http://catalog.designsforhealth.com/assets/itemresources/Acetyl_L_Carnitine_References.pdf

*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.

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