



Glutamine Powder

Serving Size 2.5 grams (½ teaspoon)
Servings Per Container 120

Amount Per Serving

L-glutamine 2500 mg

OTHER INGREDIENTS: None.

SUGGESTED USE: As a dietary supplement, take 1-3 servings per day or as directed by your healthcare professional.

REFERENCES:

1. B J Morlion, P Stehle, P Wachtler, H P Siedhoff, M Köller, W König, P Fürst, and C Puchstein Total parenteral nutrition with glutamine dipeptide after major abdominal surgery: a randomized, double-blind, controlled study. *Ann Surg.* 1998 February; 227(2): 302-308.
2. Guo GH, Deng ZY, Wang YX, Xing JJ, Peng Y, Li GH. Effects of glutamine enriched enteral feeding on immunoregulation in burn patients. *Zhonghua Shao Shang Za Zhi.* 2007 Dec;23(6):406-8

*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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GLUTAMINE POWDER

AN AMINO ACID SUPPLEMENT TO HELP SUPPORT THE HEALTHY FUNCTIONING OF THE INTESTINAL LINING

L-GLUTAMINE is the most abundant non-essential amino acid found inside the human body. In fact, 60% of the free-floating amino acid pool in human skeletal muscle is made up of glutamine. L-glutamine has various major roles, including supporting protein synthesis and regulation of acid-base balance. It also serves as a major nitrogen donor making it a key component of restoring nitrogen balance.

L-glutamine is considered a non-essential amino acid due to the body's ability to biochemically synthesize it from other sources. Research has shown, however, that glutamine may become conditionally essential in times of stress or injury due to its important role in creating and maintaining muscle mass and other tissues. L-glutamine has been shown helpful in promoting recovery after serious injury or illnesses, burns, or other major trauma. As a result, many hospitals incorporate L-glutamine into their enteral and parenteral feeding regimens in order to facilitate regeneration of tissues as well as support healthy immune activity. In a study of major burn victims, it was shown that supplementing patients with L-glutamine enriched enteral feeding solutions helped promote the synthesis of IgA and IgG and corrected immunologic dysfunction in burn patients. L-glutamine's role in maintaining muscle tissue has also led to its prevalent use among competitive athletes and weight lifters.

Another common use of L-glutamine supplements is to promote and restore healthy functioning of the gastrointestinal lining. L-glutamine is the primary fuel source for intestinal absorptive cells (enterocytes). Supplementation with L-glutamine has been shown to promote their healthy replication and differentiation. Restoring the health of the enterocytes is crucial to the strengthening of the intestinal wall itself along with improved barrier function. In clinical trials, patients supplemented with L-glutamine after abdominal surgery showed improvements in nitrogen balance and lymphocyte recovery, and shortened their hospital stay and surgical recovery.