## **Cyto**·**Glutamine**

450 grams of pure and stable L-glutamine powder. Indicated for the protection of the digestive tract, nervous tissue and optimal immunity in times of stress.

Each scoop contains: L-Glutamine

5g



450 grams powder

Vegan and fermented. GMO, gluten, soy and dairy free.

Glutamine is the most prevalent amino acid circulating in the blood stream, acting as a buffer for nitrogen containing compounds. Although it is readily available in the blood vessels, it is predominately stored in skeletal muscle tissues and released when needed. Glutamine is also one of three amino acids, along with cysteine and glycine, necessary to create glutathione, with vast implications for detoxification and antioxidant capacity.

Glutamine acts as a primary fuel for many different cells within the body. It is necessary for fibroblasts and their ability to promote healing, enterocytes that line the digestive tract and macrophages and lymphocytes needed for proper immunity. Glutamine appears to be most needed during times of convalescence, as muscle glutamine levels drop drastically as a result of significant stress. For example, athletes that over-train are more at risk of infectious disease as a result of compromised immunity. This compromised immunity is thought to be due to decreased glutamine availability for immune cells and some research has confirmed that glutamine supplementation can decrease the risk of upper respiratory tract infections in athletes after intense training.

Improved digestive health has been observed as a result of **glutamine** supplementation under a variety of stressors. Reduced diarrhea and less digestive upset have been reported

## Key points

- Indicated for the protection of the digestive tract, nervous tissue and optimal immunity in times of stress
- 5 grams per scoop
- 450 grams per container



in supplemented individuals with inflammatory bowel disease, taking antiviral medications and receiving cancer chemotherapy. These digestive benefits are thought to be as a result of its role in restoring tight junctions and reducing intestinal permeability.

Finally, glutamine has been shown to acutely increase endurance and exercise capacity in those with stable angina and it is also indicated for reducing chemotherapy-induced neuropathy. Collectively, glutamine's ability to protect the body in times of stress is quite apparent. **Cyto**•**Glutamine** is a part of the Cyto•Matrix powder series, providing 5 grams of pure and stable L-Glutamine per scoop. Individual amino acids in a powder delivery allow for personalization, dose-specificity and quick-acting results with your patients.

## Related products

Cyto-Arginine Cyto-Glycine Cyto-Lysine Cyto-Taurine Cyto-Tyrosine

## Non-Medicinal Ingredients: None

**Indications:** Helps support immune system and digestive health after periods of physical stress. Helps to assist in muscle cell repair after exercise.

**Directions:** Adults - Take 1 scoop per day or as directed by a healthcare professional. Mix product well in 1-2 cups of liquid (water, juice, etc.) immediately before consumption.

**Warnings:** Do not use if safety seal is broken. Consult a healthcare professional prior to use if you are pregnant, breastfeeding, or following a low protein diet.



