

Amino-Gram Forte™

Balanced amino acid formula

DESCRIPTION

Amino-Gram Forte™ tablets, provided by Douglas Laboratories®, contain a nutritionally balanced mixture of essential, conditionally essential, and important non-essential amino acids in their physiological L-crystalline forms.

FUNCTIONS

Amino acids have many functions in the body. They are the building blocks for all body proteins—structural proteins that build muscle, connective tissue including skin, bone and other structures, and functional proteins in the form of thousands of metabolically active enzymes. Amino acids provide the body with the nitrogen that is essential for growth and maintenance of all tissues and structures.

Aside from these general functions, individual amino acids also have specific functions in many aspects of human physiology and biochemistry. Amino acids serve as precursors for many nitrogenous substances. These include heme, purines, pyrimidines, hormones, and neuro-transmitters, including biologically active peptides. In addition, many proteins contain amino acids that have been modified for a specific function, e.g., calcium binding or collagen cross-linking.

In the fasting state, blood plasma contains all metabolically important amino acids in characteristic concentrations, and each amino acid is present in a defined ratio relative to the others. After a meal, the ratios of plasma amino acids change to reflect amino acid intake, but return later to their original levels. Normal plasma amino acid levels are extremely susceptible to physiological state and show considerable variability.

The plasma amino acid profile impacts the entry of individual amino acids into the tissues. Of particular importance is the effect of the plasma amino acid profile on the uptake of amino acids into the brain across the blood-brain barrier. As a result, alterations in the plasma amino acid profile can lead to changes in the amino-acid dependent synthesis of neurotransmitters and other nitrogenous compounds in the brain.

INDICATIONS

Amino-Gram Forte™ tablets may be a useful nutritional supplement for individuals who wish to obtain a balanced spectrum of nutritionally important amino acids.

FORMULA (#7517)

Each Tablet Contains:

L-Lysine*	148 mg
L-Histidine*	30 mg
L-Arginine*	39 mg
L-Aspartic	74 mg
L-Threonine*	41 mg
L-Serine	53 mg
L-Glutamic	230 mg
L-Proline	110 mg
L-Alanine	34 mg
L-Cystine	9.4 mg
L-Valine*	71.5 mg
L-Methionine*	32 mg
L-Isoleucine*	59 mg
L-Tyrosine	16 mg
L-Leucine*	102.1 mg
L-Phenylalanine*	22 mg
L-Tryptophan*	13 mg
(naturally occurring)	
L-Cysteine	10 mg
L-Glutamine	15.3 mg
Taurine	10.7 mg

In a base of carnitine

*One of 10 essential Amino Acids

SUGGESTED USE

Adults take 1 tablet daily or as directed by physician.

SIDE EFFECTS

No adverse effects have been reported.

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

Belfer I, Davidson E, Ratner A, et al. Dietary supplementation with the inhibitory amino acid taurine suppresses autotomy in HA rats. *Neuroreport* 1998;9:3103-7.

de Beaux AC, O'Riordain MG, Ross JA, et al. Glutamine-supplemented total parenteral nutrition reduces blood mononuclear cell interleukin-8 release in severe acute pancreatitis. *Nutrition* 1998;14:261-5.

Heird WC. Amino acids in pediatric and neonatal nutrition. *Curr Opin Clin Nutr Metab Care* 1998;1:73-8.

Karabatas LM, De Bruno LF, Pastorale C, et al. Branched-chain amino acid-enriched diet: effects on insulin secretion and cellular immune aggression. *Proc Soc Exp Biol Med* 2000;224:159-65.

Marchesini G, Bianchi G, Rossi B, et al. Nutritional treatment with branched-chain amino acids in advanced liver cirrhosis. *J Gastroenterol* 2000;35:7-12.

Novaes MR, Lima LA. [Effects of dietetic supplementation with L-arginine in cancer patients. A review of the literature]. *Arch Latinoam Nutr* 1999;49:301-8.

Parise G, Yarasheski KE. The utility of resistance exercise training and amino acid supplementation for reversing age-associated decrements in muscle protein mass and function. *Curr Opin Clin Nutr Metab Care* 2000;3:489-495.

van Acker BA, von Meyenfeldt MF, Soeters PB. [Glutamine as a key ingredient in protein metabolism]. *Ned Tijdschr Geneesk* 1999;143:1904-8.

Young VR, Borgonha S. Adult human amino acid requirements. *Curr Opin Clin Nutr Metab Care* 1999;2:39-45.

Young VR, Borgonha S. Nitrogen and amino acid requirements: : the Massachusetts Institute of Technology amino acid requirement pattern. *J Nutr* 2000;130:1841S-9S.

**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.**

**Manufactured by
Douglas Laboratories
600 Boyce Road
Pittsburgh, PA 15205
800-245-4440**