# 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 (#201252)

Each Tablet Contains:	
L-Lysine*	148 mg
L-Histidine*	30 mg
L-Arginine*	39 mg
L-Aspartic	74 mg
L-Threonine*	
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*	
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

# Amino-Gram Forte™ Balanced amino acid formula

L-Glutamine	15.3	mg
Taurine	.10.7	mg

In a base of carnitine

\*One of 10 essential Amino Acids

Other Ingredients: Lactalbumin hydrolysate (milk), cellulose, dicalcium phosphate, vegetable stearate, L-Carnitine, silica, water, polyvinyl alcohol, polyethylene glycol, magnesium silicate and polysorbate 80.

#### SUGGESTED USE

Adults take 1 tablet daily or as directed by your healthcare professional.

### 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 Geneeskd 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.Metab 1998;24:314-20.† 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.

## For more information on Amino-Gram Forte visit douglaslabs.com

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Manufactured by Douglas Laboratories 600 Boyce Road Pittsburgh, PA 15205 800-245-4440 douglaslabs.com

