



AMINO ACID SUPREME™

FREE-FORM AMINO ACID POWDER
360 G POWDER | NPN80087300 | AASPR-CN



Amino Acid Supreme™ is a high potency, balanced, free-form essential amino acid formula in a great-tasting fruit punch flavoured powder for convenient and efficacious dosing. Because these amino acids are in their free form, they can be readily absorbed and utilized by the body. Amino acids are fundamental to a vast array of metabolic functions of the body. Insufficient amino acid status may be due to digestive dysfunction, dietary and lifestyle factors, or from conditions that affect proper functioning of the stomach, pancreas, liver or small intestine.

Amino acids in their free form are immediately available for absorption and can be put to metabolic use much more readily and rapidly than amino acids contained in dietary protein. This may be especially beneficial for individuals with compromised digestive function, those recovering from physical trauma, and those (such as the elderly) who may have difficulty consuming an adequate amount of complete protein. Alpha-ketoglutarate and vitamin B-6 (as pyridoxal-5- phosphate) are included for optimal absorption and efficacy.

AMINO ACID SUPREME™ MAY BE USEFUL FOR:

- People whose diets are insufficient in quality protein
- Patients with cachexia from chronic illness or GI malabsorption¹⁻⁸
- Individuals who are in catabolic states due to stress or illness⁹⁻¹⁵
- Those recovering from surgery or tissue trauma¹⁶⁻²⁰
- Individuals at risk of sarcopenia due to aging²¹⁻³¹
- Elderly individuals with suboptimal digestive function³²⁻³⁴
- People wanting better quality hair and nails³⁵⁻³⁷
- Patients who have confirmed amino acid deficiencies on metabolic testing

FREE FORM ESSENTIAL AMINO ACIDS

Amino acids play central roles as the building blocks of proteins and as intermediates in metabolism. The precise amino acid content and the sequence of the amino acids of a specific protein determine its biological

activity. Proteins not only catalyze most of the reactions in living cells, they control virtually all cellular processes. Humans can produce 10 of the 20 amino acids; the others must be supplied through food or augmented by supplementation. Out of the 10 essential amino acids the body cannot synthesize, failure to obtain enough of even one will result in degradation of the body's proteins, including structural proteins, potentially leading to inadequate levels of peptide hormones, enzymes, neurotransmitters, antibodies, and other protein based compounds. Unlike fat and starch, the human body does not store excess amino acids for later use, so amino acids must be consumed daily, or obtained through catabolic breakdown of body tissues containing amino acids, such as skeletal muscle.

The essential amino acids (EAAs), which must be obtained via diet or supplementation, are arginine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine.

WHY ALPHA-KETOGLUTARATE & VITAMIN B6?

Alpha-ketoglutarate is the keto acid produced by deamination of glutamate. It is a key intermediate in the energy-producing Krebs cycle, coming after the intermediate isocitrate and before succinyl CoA. Anaplerotic reactions, or supplementation, can replenish this cycle, helping to increase energy and stamina. Alpha-ketoglutarate is also one of the most important nitrogen transporters in metabolic pathways.

Alpha-ketoglutarate is transaminated, along with glutamine, to form the excitatory neurotransmitter glutamate. Glutamate can then be decarboxylated, via glutamic acid decarboxylase, into the inhibitory neurotransmitter GABA. This reaction requires vitamin B6 in the form of pyridoxal-5-phosphate or P-5-P. Adequate P-5-P was included in this formula to facilitate this, and other critical conversions.

Note that tryptophan is not included in Amino Acid Supreme™ in order to give the health care practitioner the ability to use Amino Acid Supreme™ regardless of the patient's serotonin-related status and to allow the practitioner to add tryptophan (or Designs for Health's 5-HTP Synergy™ or 5-HTP Supreme™) on a case-by-case basis.

HIGHLIGHTS

- Readily absorbable free-form essential amino acids
- Powder form for easy and efficacious dosing
- Great-tasting fruit punch flavour
- Zero grams sugar or caloric sweeteners; sweetened with stevia

Medicinal Ingredients (per 12 g / 1 scoop):

L-Leucine.....	2.5 g
L-Phenylalanine.....	715 mg
L-Valine	615 mg
L-Histidine.....	590 mg
L-Arginine.....	525 mg
L-Isoleucine	525 mg
L-Lysine.....	525 mg
alpha-Ketoglutaric acid (2-Oxo-1,5-pentanedioic acid, 2-Oxoglutaric acid).....	470 mg
L-Methionine	435 mg
L-Threonine.....	385 mg
Vitamin B6 (Pyridoxal 5'-phosphate).....	20 mg

Non-Medicinal Ingredients: Fruit punch flavour, natural flavour, partially hydrolysed guar gum, stevia leaf extract, citric acid, beet powder (colour). **Recommended Dose:** Adults: Mix 12 g / 1 scoop well in 1-2 cups of water immediately before consumption per day or as directed by your health care practitioner. Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. More aggressive dosing can be used in cases where a significant addition of muscle mass is desired or in confirmed amino acid deficiency states.

REFERENCES

For a list of references cited in this document, please visit: http://catalog.designsforhealth.com/assets/itemresources/Amino_Acid_Supreme_References.pdf