



Ounce for ounce, not all protein supplements are created equal.

The purpose of protein supplementation is to provide sufficient amino acids to support tissue building and repair. The effectiveness of protein supplementation depends upon the amount of total protein intake and the amount of amino acids-peptides actually absorbed and utilized by the body. Intake and absorption are affected by digestibility, the concentration of nutrients per volume, ease of delivery, and quality of nutrients.

Pro-Stat® satisfies all of these criteria by providing the highest amount of the essential amino acids per liquid ounce, with a Net Protein Utilization (NPU) approximately twice that of meat or fish protein¹, and delivering it in an easy-to-administer and easy-to-consume liquid form. (NPU is an accepted method of measuring the retention of absorbed nitrogen in order to evaluate protein digestibility as well as the content of essential amino acids.) Pro-Stat's high NPU results not only from its amino acid profile but also because it is hydrolyzed (broken down into the elemental, absorbable component: amino acids-peptides).

Conditionally essential amino acids, such as Arginine, Glutamine, Glycine and Proline are also important for adult nutrition because of the body's inability to produce them in the amounts needed for wound-healing and hypermetabolism caused by stress from serious illness or trauma. Arginine², Glutamine³ and Glycine⁴ in particular have been found to improve wound healing, enhance immune function and optimize gut mucosal repair. Pro-Stat® provides almost twice as much of these conditionally essential amino acids as a comparable amount of whole egg protein¹. For more information visit www.pro-stat.info.

Amino Acid and Calorie Comparison per Liquid Ounce (30 mL)

Amino Acid	Pro-Stat®101	Beneprotein®*	ProCel®*
Isoleucine	257 mg	88 mg	80 mg
Leucine	469 mg	215 mg	132 mg
Lysine	681 mg	173 mg	118 mg
Methionine & Cysteine	131 mg	92 mg	57 mg
Phenylalanine & Tyrosine	363 mg	120 mg	37 mg
Threonine	333 mg	80 mg	97 mg
Tryptophan	66 mg	38 mg	20 mg
Valine	393 mg	84 mg	78 mg
Histidine	112 mg	32 mg	NA
Total Essential Amino Acids Per Ounce* (30mL)	2,805 mg	922 mg	619 mg
Arginine	1295 mg	NA	27 mg
Glycine	4075 mg	NA	23 mg
Proline	2242 mg	NA	107 mg
Glutamic Acid	1681 mg	NA	28 mg
Hydroxyproline	2121 mg	NA	NA
Total Protein Per Ounce* (30mL)	15 grams	1.5 grams	1.25 grams
Total Calories Per Ounce*	101 k/cal	6 k/cal	7 k/cal

¹ Blackburn, G. L.: (1978) Criteria for Evaluation of Protein Quality in Patients, report presented at *American Society for Parenteral and Enteral Nutritional* Jul., Boston; and *American Dietetic Association*, Sep, San Antonio.

² Williams JZ, Abramad N, Barbul A.(2002) Effect of a specialized amino acid mixture on human collagen deposition. *Annals of Surger*. Sep; 236 (3): 369-375. PMID: 12192323.

³ Smith RJ, Wilmore DW. (1990) Glutamine nutrition and requirements. *J Parenteral Enteral Nutr*. Jul-Aug; 14 (4 Suppl): 94S-99S. PMID: 2119461

⁴ Souters PB, van de Poll MCG, van Gemert WG, Dejong CHC. (2004) Amino acid adequacy in pathophysiological states. *J. Nutr*. 134: 1575S-1582S.

*Based on manufacturer's published data, when prepared according to directions. Beneprotein® and ProCel® are not registered trademarks of Medical Nutrition USA, Inc.



Pro-Stat®

Medical Nutrition USA™ Positive Clinical Outcomes Through Evidence-Based Research
Call 1-800-221-0308 for sampling and information on Pro-Stat®

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