



Aminolase TPA

Total Protein Assimilation



Ideal for bodybuilders, runners, fitness enthusiasts, or anyone with an active lifestyle¹, Aminolase™ represents a breakthrough in protein nutrition for those using protein supplements or meal replacements to help build or maintain healthy muscle mass and accelerate muscle recovery. (Figure 1)

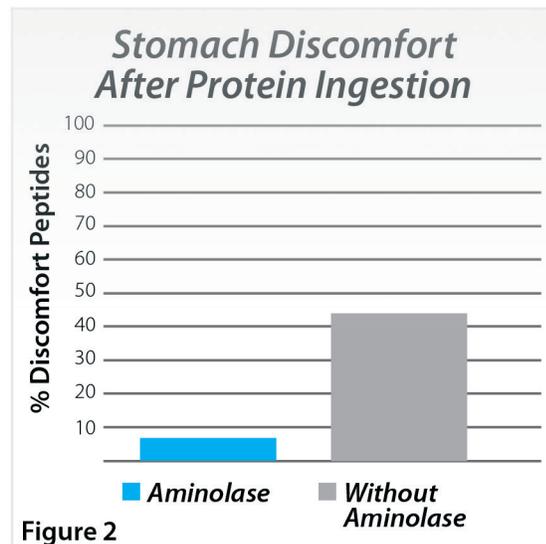
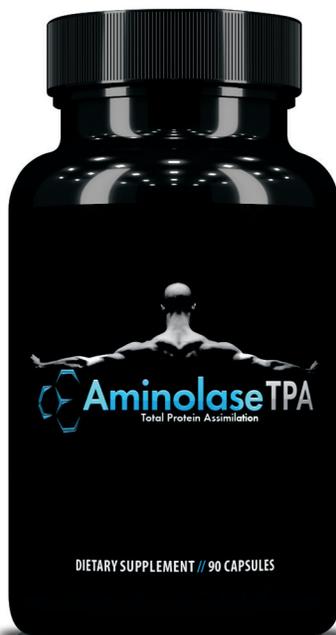
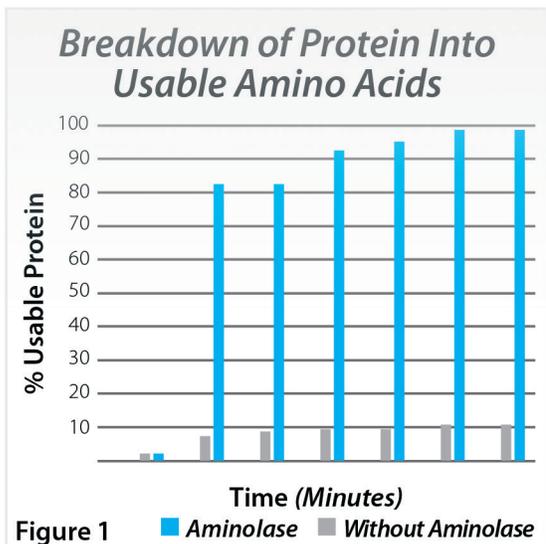
Aminolase should be taken with protein rich foods and all protein supplements including the following: whey, milk, casein, soy, pea and hemp. Protein supplements are one of the richest sources of all nine essential amino acids that the body is unable to produce on its own; however all protein must first be processed into a usable form, which includes essential amino acids and beneficial peptides (i.e., Di and Tri-peptides)³.

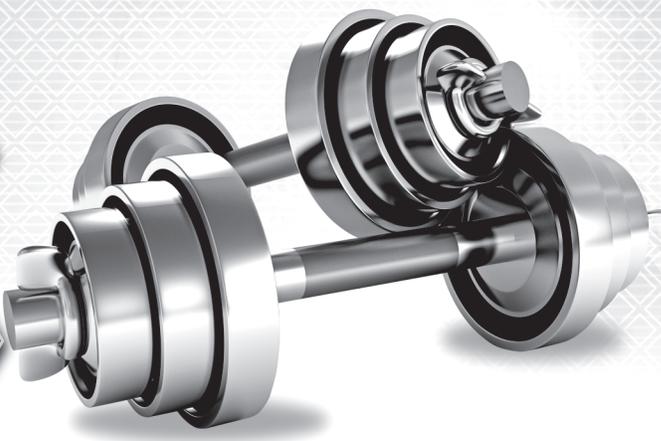
To be effective, protein must be broken down into a smaller particle size within approximately 90 minutes of consumption⁴. This transit time represents the time from which protein passes from the stomach through the small intestine where digestion/absorption primarily occurs; from there it will be assembled into muscle building protein (a bio-usable form)⁴. Undigested protein will simply be excreted from the body, resulting in increased kidney stress and wasted amino acids, essentially pouring your expensive protein supplement down the toilet. (Figure 2)

In order to properly break down protein into its beneficial amino acids, enzymes are required to carry out this process. This action must occur in the stomach and small intestine, because by the time protein reaches

the large intestine, it is too late for optimal digestion and absorption. Undigested proteins in the large intestine can begin to ferment causing cramping, gas and irritation of the bowels. This is where Aminolase can offer superior amino acid bio-availability and absorption, by converting proteins to nutrients before they leave the areas of the digestive tract that are capable of absorbing 99% of the amino acids provided by the diet or through supplementation.

On human volunteers, 4.5 hours after consuming 50 grams of whey protein, the addition of Aminolase provided a significant boost in circulating amino acids in the blood when compared to placebo participants. Specific amino acids such as glutamine (45% increase) and arginine (150% increase) demonstrates how important a supplement like Aminolase can be for anyone consuming a high protein diet. Aminolase was developed for the sole purpose of breaking down protein into its easily digestible components. Aminolase can be supplemented with any high protein diet and virtually all protein powders, from whey to animal or vegetarian protein.





Supplement Facts		
Serving Size: 1 Capsule		
	Amount Per Serving	% Daily Value
Aminolase TPA™	250 mg	†
Proprietary Plant Protease Blend		

† Daily Value Not Established

Other Ingredients: Cellulose (*vegetarian capsules*)
 Aminolase™ is free of dairy, gluten, and soy allergens. Contains no artificial colors or preservatives.

Keep out of reach of children. Store in a cool dry place with lid tightly closed.

WARNING: AMINOLASE CAN PRODUCE INTENSE MUSCLE PUMPS, RAPID INCREASES IN STRENGTH, ENDURANCE AND PERFORMANCE. THIS PRODUCT MAY ALSO INCREASE CORE TEMPERATURE AND PRODUCE BLOOD ENGORGEMENT OF THE EXTREMITIES.

DECREASED STOMACH DISCOMFORT - AN ADDED BENEFIT

When dietary protein is not broken down into its smallest components, large peptides are created that can cause stomach discomfort such as bloating, nausea and cramping. These symptoms should not be confused with food intolerances; generally, the underlying cause of protein-induced stomach discomfort is peptide sensitivity. Aminolase breaks down these large peptides, reducing the potential for discomfort that often comes from consuming protein supplements or dietary protein. (Figures 3 & 4)

As a general rule, the body does not have all the tools needed to disassemble all dietary protein, especially protein supplements. Aminolase is necessary to ensure that the body is flooded with all the amino acids needed to build muscle and recover from intense exercise. Aminolase on its own is bio-sufficient, meaning the supplement alone includes all the tools required to break down proteins into bio-usable form.



SUGGESTED USE: Consume 1 capsule of Aminolase™ per 25 grams of protein consumed. Aminolase capsules may also be opened and added directly to your favorite protein supplement. Aminolase is a vegetarian enzyme product which may increase protein bioavailability as much as 1000%.



WARNING: Aminolase can produce intense muscle pumps, rapid increase in strength, endurance and performance. This product may also increase core temperature, fat burning and produce blood engorgement of the extremities.



DELIVERY METHODS: When Aminolase is removed from capsules and added directly to protein supplements, the enzymes will rapidly begin converting protein into amino acids. Amino acids have a significantly different taste profile compared to proteins, which may impact taste and texture. When mixing protein directly with Aminolase, taste may become extremely bitter and possibly unpalatable. For best results, swallow capsules and immediately chase with your favorite protein beverage.



REFERENCES

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- Borsheim, E., K. D. Tipton, S. E. Wolf, and R. R. Wolfe. Essential amino acids and muscle protein recovery from resistance exerci se. *Am.JPhysiol Endocrinol.Metab* 283 E648-E657, 2002.
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- Kim SK: Small intestine transit time in the normal small bowel study. *Am J Roentgenol* 1968, 104: 522-4.

Breakdown of Whey Isolate Using Pancreatin Enzymes Alone and with Aminolase

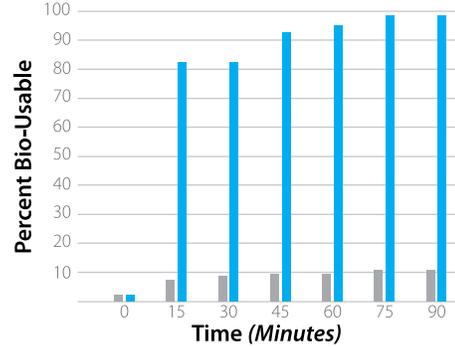


Figure 03 ■ Pancreatin ■ Aminolase™

Percentage of Discomfort Causing Peptides

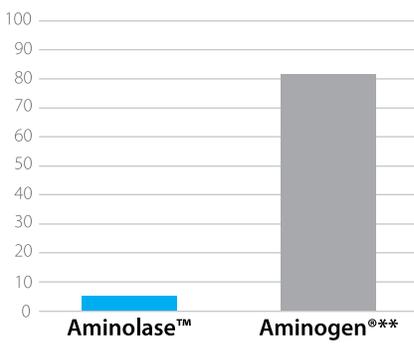


Figure 04

A BIO-SUFFICIENT SUPPLEMENT

Aminolase is a bio-sufficient supplement designed to build muscle mass and accelerate muscle recovery when used in conjunction with protein supplements, meal replacements and all protein-rich meals.

- Digests protein into bio-usable form, taking full advantage of the availability of essential amino acids for building muscle and improving muscle recovery.
- Greatly reduces stomach discomfort typically caused when protein supplements are not broken down into their smallest components.
- Maximizes the performance benefit of dietary protein, assisting the body in absorbing more protein rather than excreting it.