

# AminoZorb®

Enzymatic Buffered BCAA  
Patents Pending  
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## **What are BCAA's?**

The group of Branched Chain Amino Acids L-Leucine, L-Isoleucine & L-Valine are referred to as BCAA's. BCAA's comprise approximately 35% of the amino acids from which muscles are formed.

A branch chain amino acid is a amino acid having aliphatic side-chains with a branch (a carbon atom bound to more than two other carbon atoms).

## **What foods contain BCAA?**

The following are some good foods sources for each individual BCAA:

### *L-Isoleucine*

- \*Red Meat
- \*Chicken
- \*Eggs
- \*Fish
- \*Cheese

### *L-Leucine*

- \*Beans
- \*Brewers Yeast
- \*Brown Rice Bran
- \*Corn
- \*Casienate

### *L-Valine*

- \*Soy Flour
- \*Fish
- \*Grains
- \*Cottage Cheese
- \*Mushrooms
- \*Peanuts
- \*Red Meat
- \*Vegetables

## **Why should someone supplement with a BCAA?:**

As mentioned, BCAA make up 35% of the amino acids that form muscle. If you are an athlete, you need BCAA's!

BCAA's are metabolized for the most part in muscle tissue and are used as an energy source for muscle during exercise. BCAA's have been long studied for protein synthesis, but

more recently we have discovered that L-Leucine also serves as a regulator that activates protein synthesis through the mTOR (mammalian target of rapamycin). When you exercise, protein degradation occurs causing muscle damage. Ingesting BCAA before a exercise or after exercise has show to significantly inhibit tissue damage.

When BCAA are ingested prior to exercise, lactate generation is inhibited because the corresponding coenzyme A compounds are ultimately metabolized and BCAA's directly enter the tricarboxylic acid cycle without the formation of pyruvic acid. BCAA ingestion prior to exercise has also been reported to provide an increase in energy, since it is an energy source and preventing fatigue.

### **Are all BCAA supplements the same?**

Absolutely not. Most are cheap, synthetic version that are not water soluble & just float on the surface of the beverage it is mixed with.

### **What is AminoZorb® BCAA ?**

AminoZorb® BCAA patent pending process makes this branch chain completely stable in solution and water soluble.

### **Research:**

Research has show us that BCAA's have two faults:

- 1). They are not stable in the stomach and low pH and degrade rapidly
- 2). They are not water soluble

The following is the degradation of each BCAA in the stomach measured at relative concentration remaining:

<b>Time</b>	<b>Leucine</b>	<b>Isoleucine</b>	<b>Valine</b>
30 minutes	0.983	0.977	0.980
60 minutes	0.927	0.929	0.870
120 minutes	0.0837	0.845	0.747

### **REFERENCES:**

- 1). Wikipedia ([www.wikipedia.com](http://www.wikipedia.com))
- 2). PDR for Nutritional Supplements 2<sup>nd</sup> addition 2008
- 3). Atlas Bioscience Amino Acid Digestion Study, June 26<sup>th</sup>, 2006