



MONTIFF INC

Don Tyson's Advanced Nutraceuticals



BRANCHED-CHAIN AMINO ACIDS

L-Leucine, L-Isoleucine, L-Valine

L-Leucine, L-Isoleucine and L-Valine are branched - chain amino acids, which stimulate protein synthesis promoting anabolic effects in skeletal muscle, which is important for athletes and body builders. They also help reduce muscle catabolism in bed-ridden or post surgical patients.

Each capsule of Montiff's **Pure L-Isoleucine, Pure L-Leucine, and Pure L-Valine** contain 500 mg. each of the *purist, highest quality* amino acids available.

RECOMMENDED TO ENHANCE STRUCTURE & FUNCTION RELATING TO NUTRITIONAL NEEDS AND DEFICIENCIES PERTAINING TO

- Protein synthesis and promoting anabolic effects, which is important for those who have intense exercise and athletic activities.
- Athletes who have increased protein requirements, but are on calorie restrictive programs.
- Reducing catabolism of muscles for bed-ridden patients.
- Post surgical patients - for tissue repair of muscles, as well as bone and skin.
- Helping to stabilize blood sugar and energy levels.

WHAT ARE BRANCHED-CHAIN AMINO ACIDS (BCAAS)?

Leucine, Isoleucine and Valine, branched-chain amino acids, are essential amino acids, and must be supplied by dietary protein or through supplementation. They make up 40% of human essential daily amino acids requirements and are necessary for protein synthesis, as well as the synthesis of tricarboxylic acid cycle intermediates, ketone bodies, and fat, and the metabolism and synthesis of glutamate, glutamine and alanine. There is high activity of these amino acids in muscle tissue, liver and kidneys. They have an anabolic and anticatabolic effect on muscles, and are beneficial to athletes, as well as those who have conditions that can cause muscle catabolism. Therefore, branched-chain amino acids, along with L-Glutamine, are also recommended for post-surgical patients, as well as bed-ridden patients and those with muscle wasting conditions.

BCAAS AND ATHLETIC REQUIREMENTS

- Research indicates that athletes with high endurance exercise regimens, as well as body builders, have increased protein requirements. A sedentary person requires 0.8 grams per kilogram of body weight, whereas athletes who are striving to increase muscle mass require 1.4 to 1.8 grams of protein per kilogram of body weight. Body builders at peak muscle mass production increase their needs to 2.0 as well as adolescent athletes involved in high intensity physical activity. Increased requirements for branched-chain amino acids compose a significant proportion of the additional protein needs. Whereas dietary means can supply protein, to obtain optimal anabolic results, supplementation with the branched-chain amino acids, along with L-Glutamine, will provide the necessary amino acids that are required for skeletal muscle synthesis. For, dancers, gymnasts, and runners who have restricted caloric needs but increased protein requirements, supplementation is a good choice to help provide these essential nutrients.
- Exercise and strong athletic activities increase protein degradation. Studies indicate that supplementation of branched-chain amino acids during exercise decreases this degradation. They may help improve performance, and aid in the recovery and repair after intense athletic activity. Augmenting with branched-chain amino acids supplementation has been shown to increase overall body protein synthesis and enhance skeletal muscle. It is suggested that athletes and body builders take the branched-chain amino acids and L-Glutamine, prior to and after the athletic workout or activity.

*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.

L-ISOLEUCINE

L- Isoleucine, an essential amino acid and one of the branched-chain amino acids, is necessary for the formation of hemoglobins, as well as helping to stabilize blood sugar and energy levels. Low levels have been noted in those with obesity, chronic wasting diseases and chronic fatigue syndrome. Some dietary sources include nuts, such as almonds and cashews, as well as chicken, liver, fish and soy. It should be taken along with L-Leucine and L-Valine.

L-LEUCINE

L- Leucine, one of the three amino acids referred to as branched-chain amino acids, is found in the dietary sources including brown rice, beans, meat, nuts, whole wheat and soy flour. It is involved in muscle synthesis, as well as protecting muscles and helping to promote the healing of muscle tissue as well as bone and skin tissue. It may help lower elevated blood sugar levels, and is involved in increasing hormone production. Low levels have been noted in those with chronic wasting diseases and chronic fatigue syndrome. L- Leucine, along with the other branched –chain amino acids are recommended to help promote healing in surgical patients, and it should be taken along with L- Isoleucine and L-Valine.

L-VALINE

The food source of L-Valine is dairy products, meat, peanuts, soy protein and mushrooms. L-Valine is found in high concentrations in muscle tissue, and as one of the branched-chain amino acids, it provides an energy source for muscle tissue and is necessary for muscle metabolism, as well as tissue repair. Drug addiction depletes amino acids causing a deficiency that can be aided by L-Valine. Low levels have been noted in those with chronic wasting diseases, obesity and chronic fatigue syndrome. It should be taken with L-Leucine and L-Isoleucine.

DIRECTIONS: All three of these branched-chain amino acids should be taken together for proper metabolic synthesis. *For athletes* and body builders, take **1** capsule of Pure L-Isoleucine, **1** capsule of Pure L- Leucine, and **1** capsule of Pure L-Valine 20 minutes *prior to* and 10 minutes *after* an athletic workout - with a full glass of water or fruit juice.

- *Athletes in intense training* with over 3 hours of exercise per day may have increased requirements; therefore, they can increase their dosage to 2 L-Valine, 2 L- Leucine and 1 L-Isoleucine twice daily. Pure L- Glutamine should also be included for proper anabolic effects (2-3 caps. sublingually -prior to and after workout).
- *For others*, take the 1c.of each regimen of the branched-chain amino acids (or as needed) plus 2-3 of the L- Glutamine 20 to 30 minutes prior to meals (twice daily) with a full glass of water or fruit juice. (In powder form, 1/4 tsp. equals 1 capsule and may be mixed in liquid of choice. Adding **Montiff Quick Shake** is also recommended.)

*For those wishing an amino acid formula high in branched-chain amino acids, along with other amino acids, **Montiff Super Sports** formula is suggested. (Take 2-3 capsules before and after workout or prior to meals)

** **A B-complex is recommended (Montiff B-Complete or B-long) to help metabolize amino acids, as well as a vitamin-mineral complex (Montiff Vita-Minz Plus).**

REFERENCES

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