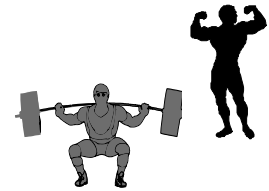




MONTIFF INC

*Don Tyson's Advanced Nutraceuticals*



## TRI-ALPHA-K

L-Amino- $\alpha$ -Ketoglutarate Formula

A *UNIQUE* blend of 3 L-Crystalline salts with special nutritional metabolic features.

Each capsule contains 700mg of the following ingredients with highest to lowest amounts listed in this proprietary formula: L-Ornithine- $\alpha$ -Ketoglutarate, L-Glutamine- $\alpha$ -Ketoglutarate, L-Arginine- $\alpha$ -Ketoglutarate.

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

- Potent inducer of protein synthesis.
- Kidney and liver support
- Assists in growth hormone secretion (hGH).
- Inhibits protein catabolism (Nitrogen Sparing).
- Potent activation of T-lymphocytes i.e. depends on Polyamine synthesis.
- Aids in Nitric Oxide formation.
- OKG stimulates branched-chain Keto acid (BCKA) synthesis.
- Improvement of nutritional status in Liver failure.
- Aids wound healing from burns and surgery.
- Strongly modifies Glutamine fluxes.
- Hormonal secretagogic effects in combination with Arginine i.e. hGH, Insulin and Glucagon.



### WHAT ARE AMINO ACIDS?

Amino acids are the building blocks of protein, and are vital to understanding the Krebs Cycle. They are individual crystalline molecules that make up protein, similar to the way letters make up the alphabet. There are 20 basic amino acids that produce over 1600 substances in the body. They make up 3/4ths of the body's solid material, and are found in muscle tissue, organs, blood and skin. Amino acids also make hormones, enzymes, and vitamins, and are essential for a healthy immune system and proper neurological functions. It is necessary to replace amino acids constantly to nourish the body, and repair and regenerate tissue. Amino acids are generally ingested in the food we eat, however, because of processed foods, inadequate diets, and food restrictive programs, proper balance is rarely achieved and supplementation is advisable. Especially during illness, trauma, surgery and stress more amino acids are required than can be obtained by food alone.

### PHYSICAL AND CHEMICAL PROPERTIES OF TRI-ALPHA-K

L-Ornithine- $\alpha$ -Ketoglutarate 2:1 (OKG 2:1), L-Glutamine- $\alpha$ -Ketoglutarate 2:1 (GOKG 2:1), and L-Arginine- $\alpha$ -Ketoglutarate 2:1 (AOKG 2:1) are salts formed from one molecule of alpha-Ketoglutarate and two molecules of Ornithine, Glutamine and Arginine per each salt.

The Tri-Alpha-K formulation is highly soluble in water and may be removed from the capsules prior to taking. The product when dissolved in water or added to juice may take on a slight yellowish color which is normal. The product is extremely stable when kept in the original bottle tightly sealed.

## ADDITIONAL REPORTED BENEFITS OF ORNITHINE- $\alpha$ -KETOGLUTARATE

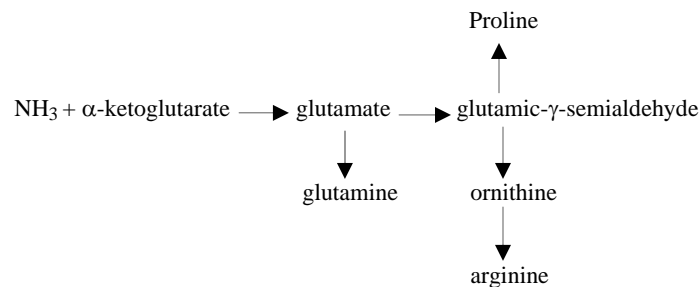
- OKG supplementation has increased the food intake of elderly patients.
- It has been administered to children with short bowel syndrome (Crohn's disease), and they exhibited an increase of height and weight.
- Individuals with degenerative diseases (such as cancer), who have low nitrogen balance and catabolism, have increased food intake and improved nitrogen balance when OKG is administered.

## STATEMENT OF QUALITY

- Montiff provides the highest quality, pure alpha-Ketoglutarate (2:1) salts.

**DIRECTIONS:** Take 1 capsule 30 minutes before meals on an empty stomach with water or fruit juice or as directed by a health care professional. **DO NOT TAKE WITH DAIRY PRODUCTS.**

- Vitamins and minerals are necessary for proper metabolism, and Montiff Vita-Minz Plus and B-Complete or B-Long are also recommended.
- **SPORTS ACTIVITY:** Prior to sports activities take 3 capsules of Tri-Alpha-K, 3 capsules of Super Sports, 2 Vita-Minz Plus, 1 B-Complete or B-Long. At bedtime, day of sports activities, take 3 capsules of Tri-Alpha-K, along with 1 B-Complete or 1 B-Long.



## REFERENCES

- Cynober, Luc (edited by), Amino Acid Metabolism and Therapy in Health & Nutritional Disease, 1995, and "The Use of Alpha-Ketoglutarate Salts in Clinical Nutrition and Metabolic Care", Curr Opin Clin Nutr. Metab Care, 1999.
- Cynober L, Coudray - L, "A Rational for OKG in Administration in Surgical & Trauma Patients", Amino Acids in Surgery: Latifii, ed, 1994.
- Di Pasquale, M, Amino Acids and Proteins for the Athlete the Anabolic Edge, 1997.
- Latifi, Rifat, M.D., Amino Acids in Critical Care and Cancer, 1994.
- Jeevanandam M, "Ornithine Alpha-Ketoglutarate in Trauma Situations", Clinical Nutrition, 1993.
- Le Bricon T., Coudray-Lucas C., Lioret N., et al. "Ornithine Alpha Ketoglutarate Metabolism after Enteral Administration in Burn Patients: Bolus Compared With Continuous Infusion". American Journal of Clinical Nutrition, 1997.
- Pradoura J. et al "Incid. De L'Oxoglutarate d'Ornithine sur la reparation cutanee des malades de carcinologie cervico-faciale operes", Cah. ORL., 1990.
- Bouchon Y., Merle M. "L'- $\alpha$  Cetoglutarate d'Ornithine per os dans la Prevention des Complications Locales de la Chirurgie Plastique," Ann Chir, Plast, Esthet 1984.
- Mettelal J., Womarck Y, Berthaux P, "Comparison en double aveugle des effets de l'oxoglutarate d'ornithine sur le comportement aliment des sujets ages", Rev. Geriatric, 1990.
- De Brandt TJ, Cyneber L, "Amino Acids with Anabolic Properties", Curr. Opin Clin Nutr. Metab. Care, 1998.
- Donati L, Ziegler F., Pongelli G, Signorini S, "Nutrition and Clinical Efficacy of Ornithine Alpha-Ketoglutarate in Severe Burn Patients", Clinical Nutrition. 1999.
- Shuster H; Blanc MC; Genthon C; Therond P; Bonnefont-Rousselot D; Le Tourneau A; De Bandt JP; Cynober L, "Does dietary ornithine alpha-ketoglutarate supplementation protect the liver against ischemia-reperfusion injury?" Clin Nutr 2005 Jun;24(3):375-384.
- Cynober L, "Ornithine alpha-ketoglutarate as a potent precursor of arginine and nitric oxide: a new job for an old friend." J Nutr 2004 Oct;134(10 Suppl):2858S-2862S; discussion 2895S.
- Moinard c; Caldefie F; Walrand S; Felgines C; Vasson MP; Cynober L, "Involvement of glutamine, arginine, and polyamines in the action of ornithine alpha-ketoglutarate on macrophage function in stressed rats." J Leukoc Biol 2000 Jun;67(6):834-40.
- Schneid C; De Bandt JP; Cynober L; Torres E; Reach G; Darquy S, "in vivo induction of insulin secretion by ornithine alpha-ketoglutarate: Involvement of nitric oxide and glutamine." Metabolism 2003 Mar;52(3):344-50.

COPYRIGHT 6/2005©