

THE **VITAL**
ESSENCE



LAMINO[®] **TABLETS**
Essential Amino Acid Tablets

La Renon[®]

LAMINO[®]

Essential Amino Acid Tablets

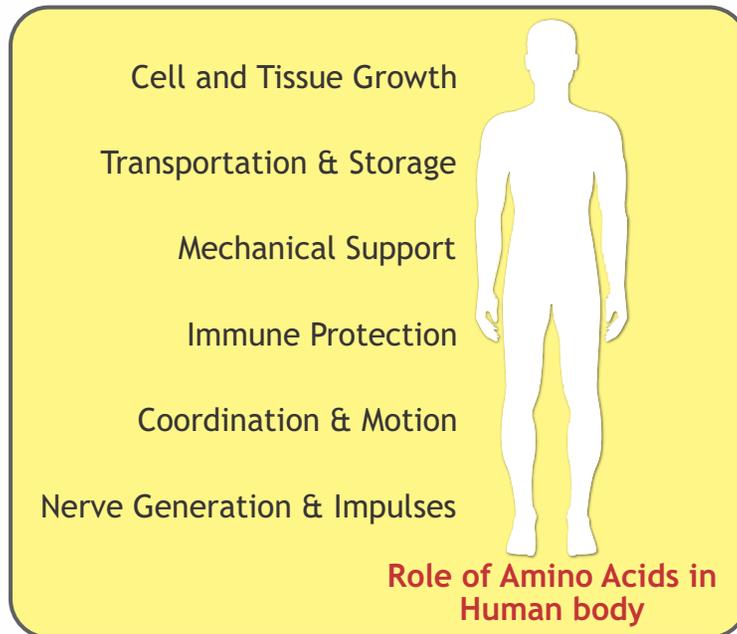
TABLETS

PROTEIN AND KIDNEY DISEASE:

- Your body needs protein to be healthy. But when you have early stage kidney disease, excessive protein intake can put strain on your kidneys, causing more damage.
- A carefully planned, reduced protein diet may help slow the progression of kidney disease.

IMPORTANCE OF PROTEIN:

- The human body is made up of 75% protein. Protein allows your body to counteract everyday wear and tear, heal from injury, stop bleeding and fight infections.
- Protein is made from chains of amino acids that are often called the “building blocks of life.”
- There are 20 amino acids that keep your body healthy. Eleven of these amino acids are produced by your liver while the other 9 “essential” amino acids come from food.
- When a food has all nine essential amino acids, it is considered a “complete” protein food.



KDOQI REQUIREMENT FOR PROTEIN:

Patients	Protein Requirement
Normal	0.8 g/kg/d
Hemodialysis	1.2 g/kg/d
Peritoneal Dialysis	1.4 g/kg/d

CLINICAL EVIDENCE

Oral supplementation of branched-chain amino acid improves nutritional status in elderly patients on chronic haemodialysis

BACKGROUND:

- Anorexia may be associated with decreased plasma levels of branched-chain amino acids (BCAA).
- In malnourished elderly hemodialysis (HD) patients, oral BCAA supplementation may improve anorexia, resulting in improved nutritional status.

METHODS:

- Among 44 elderly (age >70 years) patients on chronic HD, 28 patients with low plasma albumin concentration (<3.5g/dl) were classified as the malnourished group; they also suffered from anorexia.
- The other 16 patients did not complain of anorexia and were classified as the well-nourished group.
- We performed a 12-month, placebo-controlled, double-blind study on the malnourished group.
- Fourteen patients each received daily oral BCAA supplementation (12g/day) or a placebo in random order in a crossover trial for 6 months.
- Body fat percentage, lean body mass, plasma albumin concentration, dietary protein and caloric intakes, and plasma amino acid profiles were monitored.

RESULTS:

- Lower plasma levels of BCAA and lower protein and caloric intakes were found in the malnourished group as compared to the well-nourished group.
- In BCAA-treated malnourished patients, anorexia and poor oral protein and caloric intakes improved within a month concomitant with the improvement in plasma BCAA levels over the values in well-nourished patients.
- After 6 months of BCAA supplementation, anthropometric indices showed a statistically significant increase and mean plasma albumin concentration increased from 3.31g/dl to 3.93g/dl.
- After exchanging BCAA for a placebo, spontaneous oral food intake decreased, but the favourable nutritional status persisted for the next 6 months.
- In 14 patients initially treated with a placebo, no significant changes in nutritional parameters were observed during the first 6 months.
- However, positive results were obtained by BCAA supplementation during the subsequent 6 months, and mean plasma albumin concentration increased from 3.27g/dl to 3.81g/dl.

CONCLUSIONS:

Normalization of low plasma levels of BCAA by oral supplementation can reduce anorexia and significantly improve overall nutritional status in elderly malnourished HD patients.

Reference:

Nephrol Dial Transplant. 2001 Sep;16(9):1856-62

LAMINO[®]

Essential Amino Acid Tablets

TABLETS

DESCRIPTION:

- An essential amino acid or indispensable amino acid is an amino acid that cannot be synthesized in human body and thus must be supplied in its diet.
- **LAMINO[®]** is essential amino acid tablet. **LAMINO[®]** tablets contain 8 E.A.A along with 2 N.E.A.A. (Histidine and Tyrosine).

INDICATION:

LAMINO[®] to be prescribed to the Renal patients who are suffering from protein deficiency & malnutrition.

COMPOSITION:

Each tablet contains 720 mg amino acids, corresponding to 0.55 g protein.

MECHANISM OF ACTION:

- Proteins break down into peptides and peptides further break down in to Amino Acids.
- Amino Acids break down to Two groups - Amino Group & Carboxylic Group.
- Only 5-7% of Amino Group combines with the CO₂ from blood & gets converted into Urea (NH₂CONH₂) and excreted in Urine. (Catabolism).
- When patient is supplemented with Essential Amino Acids the process of Catabolism stops and patient gets into anabolism state, Amino Group gets reutilized for Amino Acids Synthesis hence reducing the formation of Urea.

DOSAGE:

The Recommended Dose of **LAMINO[®]** is 0.25 tablet / kg BW / day.

ADVANTAGES:

- Reduces the progression rate of CKD.
- Postpones the need for Dialysis / Transplant.
- Prolongs the interval between Dialysis.
- Compensates the protein deficiency / loss during Dialysis.
- Improves overall nutritional status.

PRESENTATION:

LAMINO[®] Tablet is available as a strip of 10 tablets of Alu-Alu blister packing

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