

Managing nutrition in CKD is now a
Child's play...



...with

Lamino[®] Bix

High Protein Diskettes

La Renon[®]

Lamino[®] Bix

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Causes of under nutrition in patients with CRF:

- Reduced oral intake
- Restrictive dietary regimen
- Uremic toxicity
- Microinflammation (MIA syndrome)
- Metabolic acidosis
- Endocrine factors (insulin resistance, Hyperparathyroidism, elevated plasma leptin, etc.)
- Gastrointestinal factors (gastroplegia, impaired absorption, etc.)

Recommendations for protein and energy supply in adult patients on routine hemodialysis and CAPD:

Protein intake (g/kgBW/day)	ESPEN	NKF
Hemodialysis	1.2-1.4 (>50% HBV)	1.2 (>50% HBV)
CAPD	1.2 (>50% HBV)	1.2-1.3(>50% HBV)
Energy intake (kcal/kgBW/day)		
Hemodialysis	35	(<60 yr) 35
CAPD		(<60 yr) 30

Mineral requirements of patients on HD, hemodialysis; CAPD, chronic ambulatory peritoneal dialysis:

Phosphate (mg/d)	800-1000
Potassium (mg/g)	2000-2500
Sodium (g/d)	1.8-2.5

Ideal nutritional supplement:

- It can be broadly classified in two categories: (1) High protein content – for dialysis patients (2) Low protein content – for predialysis patients / renal supplement for nondialysis patients.
- Regarding the protein quality, guidelines suggest at least 50% of the protein should be of high biological value (HBV).
- Biological value refers to how well and how quickly the body can actually use the protein.
- Considering this fact, whey protein seems most suitable, as the whey protein concentrate has a high biological value. This will ensure better utilization of protein in the body.
- The ideal supplement should have good protein (100% whey protein) and should preferably be free from phosphorous (P), vitamin A, and vitamin K.

Diets and enteral supplements for improving outcomes in chronic kidney disease

- Protein-energy wasting (PEW), which is manifested by low serum levels of albumin or prealbumin, sarcopenia and weight loss, is one of the strongest predictors of mortality in patients with chronic kidney disease (CKD).
- Although PEW might be engendered by non-nutritional conditions, such as inflammation or other comorbidities, the question of causality does not refute the effectiveness of dietary interventions and nutritional support in improving outcomes in patients with CKD.
- The literature indicates that PEW can be mitigated or corrected with an appropriate diet and enteral nutritional support that targets dietary protein intake.
- In-center meals or oral supplements provided during dialysis therapy are feasible and inexpensive interventions that might improve survival and quality of life in patients with CKD.
- Dietary requirements and enteral nutritional support must also be considered in patients with CKD and diabetes mellitus, in patients undergoing peritoneal dialysis, renal transplant recipients, and in children with CKD.
- Intraperitoneal or intradialytic parenteral nutrition should be considered for patients with PEW whenever enteral interventions are not possible or are ineffective.
- Controlled trials are needed to better assess the effectiveness of in-center meals and oral supplements.

Reference:

Kalantar-Zadeh, K. et al. *Nat. Rev. Nephrol.* 7, 369-384 (2011);

LAMINO® BIX Composition

	5 g Composition	100 g Composition
Energy	22.75 kcal	455 kcal
Carbohydrates	2.4 g	48 g
Protein	1.6 g	32 g
Fat	0.75 g	15 g
Vitamins		
Vitamin C	2.5 mg	50 mg
Nicotinamide	375 mcg	7.5 mg
Pantothenic Acid	190 mcg	3.8 mg
Vitamin B6	100 mcg	2 mg
Vitamin B2	32 mcg	0.64 mg
Vitamin B1	28 mcg	0.56 mg
Folic Acid	12.5 mcg	0.25 mg
Vitamin B12	0.115 mcg	2.3 mcg
Minerals		
Sodium	10 mg	200 mg
Potassium	6.55 mg	131 mg
Magnesium	3.35 mg	67 mg
Phosphorus	1.85 mg	37 mg
Iron	0.1 mg	2 mg



Lamino[®] Bix

High Protein Diskettes

Description

A unique product for daily protein requirement of individuals need high protein. Each Tin of Lamino Bix contains total 40 biscuits.

Indication

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

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

- Six to eight **Lamino[®] Bix** may be taken per day, at mid-morning and at evening tea time, to supplement the need of protein in individuals requiring high protein.

Advantages

- The taste and nature of protein delivery in this case is such that the patient hardly feels he is taking a supplement.
- The constructed formulation is apt for the use of a dialysis patient. The main source of the protein is gold standard WHEY PROTEIN, ensuring high bio availability.
- Moreover, we have added - NATURAL MANGO FLAVOR in the bix.
- Extremely Low in major Electrolytes esp. phosphorus and potassium which is a major concern for any dialysis patient.
- The amount of phosphorus in 100 gm is only 0.037% and potassium is 0.131%. Also, the diskettes are sucrose free and contain only water soluble vitamins hence no accumulation in the body.
- Thus, overall the formulation is designed in a manner to suit the requirement of a CRF patient in a comprehensive manner.

Presentation

Each Tin of **Lamino[®] Bix** contains total 40 biscuits & weight of each biscuit is 5gm. Net Weight - 200gm.

La Renon[®]

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I am _____

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