



INHALE EXHALE

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Breathe with Ease

Lamino Respi

FOOD SUPPLEMENT FOR RESPIRATORY CARE

La Renon

Pulmonary Diseases & Malnutrition:

- Malnutrition and its associated adverse pulmonary effects can directly affect outcomes in the individual with pulmonary disease.
- Significant relationship between Pulmonary diseases and Nutrition.
- Recent nutrition surveys in hospitals continue to suggest that 40–50% of patients, particularly those in the intensive care unit, have a moderate degree of malnutrition.
- Nutritional support is essential for mechanically ventilated patients to meet their energy requirements

Role of Ketogenic Diet in Pulmonary Care

- Asthma
- COPD
- Pulmonary discomforts



- Inflammation
- Bronchoconstriction
- Airway obstruction



Difficult to eliminate CO₂ due to pathogenesis, Secondary due to diet:
High Carbohydrates leads to more production of CO₂: Hypercapnia



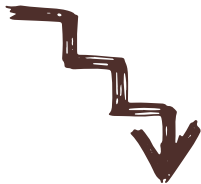
Regular Diet

High carbon dioxide production can precipitate acute respiratory failure in patients with chronic pulmonary disease and can complicate weaning in ventilator dependent patients & More energy required for Respiration



Ketogenic Diet

High Fat, Low Carbohydrates & Controlled Protein: Refines the Respiratory Quotient (RQ) & lowers the CO₂ production leads to improve breathing efficiency



**Helps to Reduce Hypercapnia
Due to Ketogenic Diet**

Features of Lamino Respi

- Ketogenic Diet: High Fat, Low Carbohydrate & Controlled Protein



- Improves Respiratory Quotient
- Anti-Inflammatory: N-Acetyl Cysteine, Zinc, Vitamin C, E & D
- Reducing Oxidative Stress: Vitamin A, C, E & Zinc
- 27 Essential Vitamins & Minerals
- Strengthens Respiratory Muscles
- Improve Patient compliance-Strawberry Flavor
- Gluten Free

Clinical Evidence:

Impact of high fat low carbohydrate enteral feeding on weaning from mechanical ventilation with type II respiratory failure Patients.

Background:

To compare the effect of a high fat, low carbohydrate enteral feeding to a standard iso-caloric enteral feeding on arterial carbon dioxide tension and ventilation time in patients with type II respiratory failure secondary to pulmonary disease requiring mechanical ventilation

Method:

One hundred patients with type II respiratory failure secondary to pulmonary disease requiring mechanical ventilation who could be enterally fed in the respiratory intensive care unit of Ain Shams University Hospitals were enrolled in this study. They were divided randomly into:

Group A: included fifty patients who received standard iso-caloric feeding with carbohydrates (53.3%), fats (30%) and proteins (16.7%).

Group B: included fifty patients who received iso-caloric high fat low carbohydrate feeding with carbohydrates (28.1%), fats (55.2%) and proteins (16.7%) also through the Ryle tube.

Results:

Group B had 16% decrease in arterial carbon dioxide tension, 8% decrease in the minute volume at weaning, and spent on average 62 h less on mechanical ventilation.

Conclusion:

A nutritional regimen with a high fat content may reduce ventilatory requirements and therefore reduce the duration of mechanical ventilation.

