

# Protein Malnourished Patient

## MALNUTRITION

Suboptimal oral intake is a problem for many hemodialysis patients. Over time a decline in nutrition status called Protein Energy Wasting (PEW) results in depletion of body protein reserves and/or caloric reserves. PEW may be reflected by low blood protein levels (serum albumin); low level indicators of protein intake (nPCR) levels, and/or weight loss with reduced muscle and fat mass.

When diet counseling and enteral routes of alimentation have been maximized with no improvement in nutrition status, Intradialytic Parenteral Nutrition (IDPN) is a repletion option.

## PROTEIN MALNUTRITION

IDPN solution specifically designed to meet the needs of the protein malnourished patient who consumes adequate calories. The solution provides protein to help compensate for the inadequate protein intake and allow repletion of protein stores with minimal carbohydrate and no lipid provision. Carbohydrate in the form of dextrose in IDPN is required for stimulation of pancreatic insulin response which is necessary for amino acids to effectively be taken up by liver and muscle cells for anabolism. The formula contains much lower amounts of dextrose as compared to standard available IDPN effectively stimulating insulin response with lessened elevation of blood glucose levels.

## Other Patient Challenges Appropriate For Therapy...

### *Diabetes Patients And Patients With Poor Glucose Control*

The lower carbohydrate formulation allows for improved blood glucose levels as compared to traditional IDPN and may decrease the need for glucose management or insulin coverage. Glucose checks while optional are recommended for those with difficult to manage blood glucose levels.

### *Patients With Volume Management Challenge*

Lower carbohydrate and no lipid formulation results in reduced volume making it a favorable option for malnourished hemodialysis patients with fluid management problems such as: Advanced cardiac or hepatic disease with accompanying fluid intolerance patients with high interdialytic fluid gains which pose fluid removal challenges.

### *Overweight Or Obese Patients*

The low carbohydrate and no lipid formulation allows for protein repletion in patients without additional undesirable calories often found in traditional IDPN.

### *Result: Ease Of Management*

The formulation translates to ease of use and simplicity of management for busy clinicians. Finally, a close to effortless nutrition therapy to benefit your malnourished hemodialysis patients is available from Pentec Health Inc.

Find out more about this significant breakthrough in IV Renal Nutrition  
**(800) 223•(IDPN) 4376**



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