



## PATIENT EDUCATION

### Protein and dialysis

It is important to understand why protein intake is of such importance for patients undergoing dialysis treatment. Moderate to severe malnutrition is common in patients undergoing maintenance dialysis.

This complication is of concern, since inadequate nutrition is an important determinant of patient mortality. Hypoalbuminemia may not always result from malnutrition, although the association with mortality still exists. It is now well recognized that there are other causes of a low serum albumin, such as: chronic inflammation and excessive peritoneal albumin losses during dialysis.

Although the significance of serum albumin as a predictor of outcomes in adults is undisputed, its relationship to overall nutrition and to a larger extent, to the levels of urea or creatinine clearance is unclear. That albumin synthesis depends on dietary protein intake is well known.

However, catabolic illness can reduce albumin synthesis, and probably increase albumin degradation, even when dietary protein intake is not low.

Observations in PD patients have provided indirect support for this effect of catabolic illness. Although serum albumin concentration is an important predictor of outcome, it was not found to be significant in another study when comorbid conditions were entered as covariates in their model. In this last study, the presence of comorbid conditions was associated with low serum albumin. Several cross-sectional studies have identified a positive correlation between serum albumin concentration and solute clearance. However, urea and creatinine clearance were not identified as predictors of serum albumin by multivariate analysis.

Other factors were taken into consideration e.g.

- age
- diabetes peritoneal solute transport

If the serum albumin level is below normal but is increasing, this suggests that the patient is anabolic and is increasing protein stores. Conversely, a low albumin or decreasing albumin level is likely to be associated with malnutrition or decreasing protein stores.

Serum albumin concentration should be monitored on a regular basis and a stable or rising value is desirable. It should be measured at least every 3 months.

- Serum albumin levels should be evaluated in the context of the patient's overall clinical status including:
- comorbid diseases
- peritoneal transport type
- delivered dose of PD
- Quality-of-life issues.

#### **Facts to remember:**

Remember if you do not dialyse as prescribed, toxins build up in you're blood that leads to effect you're apetite. If you don't eat you will feel tired. Feeling tired will result in not performing bag changes and more toxins build up in the blood. You will get fluid overloaded and that will affect youre appetite and feeling tired.

When you sit down to eat, first eat the protein on the plate, when you are satisfied you protein is not left over.

If you cannot eat all the protein with a meal leave half of it as a snack for later.

#### **If you don't feel like eating prepare the following:**

4 egg whites

200 ml of milk/ diabetics – low fat milk

2 scoops of ice cream/ diabetic ice cream

Liquidize all together and enjoy

You can add ¼ banana or 4 strawberries for taste

Dairy protein contains lots of phoshates remember to take the phosphate binders! *The highest albumin level possible should be the goal for each patient.*