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Interpreting Research for the Kidney Patient - January, 2006

¹Walser M, Mitch WE, Maroni BJ, Kopple JD. Should protein intake be restricted in predialysis patients? *Kidney Int.* 1999 Mar;55(3):771-7.

²Mitch WE, Remuzzi G. Diets for patients with chronic kidney disease, still worth prescribing. *J Am Soc Nephrol.* 2004 Jan;15(1):234-7.

³Kopple JD, Levey AS, Greene T, Chumlea WC, Gassman JJ, Hollinger DL, Maroni BJ, Merrill D, Scherch LK, Schulman G, Wang SR, Zimmer GS. Effect of dietary protein restriction on nutritional status in the Modification of Diet in Renal Disease Study. *Kidney Int.* 1997 Sep;52(3):778-91.

⁴Owen WF Jr, Lew NL, Liu Y, Lowrie EG, Lazarus JM. The urea reduction ratio and serum albumin concentration as predictors of mortality in patients undergoing hemodialysis. *N Engl J Med.* 1993 Sep 30;329(14):1001-6.

We know some of you will give up on your diet and on the essential amino acid supplements. But take heart, in speaking about kidney disease and its symptoms, an eminent nephrologist Bill Mitch writes, “Many of these complications [blood pressure, proteinuria, neuropathy, and muscle and bone disorders] can be prevented by manipulating the diet.”¹ He is really trying to get nephrologists to ask kidney patients to lower the amount of protein they eat.

Even more recently, Dr. Mitch wrote² about the need for nephrologists to encourage their patients to go on a low protein diet. He wanted them to cut down from a normal intake of 55 grams of protein each day for a 150 lb (ideal weight) to 40 grams of protein each day.

Dr. Mitch cited an extremely important review³ of a large study funded by the government which was initially thought to say that a low protein diet didn't do any good. However, when the Nephrologists reexamined the data on the basis of those patients who actually did lower their protein intake as opposed to those that their doctors told to lower their intake, they found out that many of the patients didn't follow the doctor's orders. Not unlike some of you who don't take your Essential Amino Acids (EAA) as you should. Some of you just aren't convinced that it's worth the trouble.

The actual result of this large trial was a very significant delay in the start of dialysis (or death for those who refused dialysis) for those patients who lowered the amount of protein they ate. These patients lowered the amount of protein they ate each day from 56 grams each day to 42 grams each day -- a 41% improvement just by lowering their protein intake to 42 grams a day. That's not nearly as much improvement as Drs. Walser and Mitch were able to show in their studies in which patients reduced their protein intake to 20 grams of protein per day, but it's better than nothing.

The worry is that when you go below that 56 gram figure, you run the risk of malnutrition! That's why you take the EAA. Patients with muscle loss or protein in their urine are at even more risk for malnutrition problems.

One of the most significant numbers for you to follow on your blood work is the serum albumin which should be at 4.0 or above. For dialysis patients who had a serum albumin level between 3.5 and 3.9, the increased risk of death was 48%. For those who had levels between 3.0 and 3.4, the risk jumped to 313% or 3 times greater than for someone whose albumin level was 4.0.⁴ It's extremely important for you to take your EAA for good health. The pain involved in dying is greater than the aggravation of a very low protein diet and your EAA supplement.