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Interpreting Research for the Kidney Patient - December, 2006

¹ Hartley GH. Nutritional status, delaying progression and risks associated with protein restriction. EDTNA ERCA J. 2001 Apr-Jun;27(2):101-4.

² Mandayam S, Mitch WE. Dietary protein restriction benefits patients with chronic kidney disease. Nephrology (Carlton). 2006 Feb;11(1):53-7.

³ Johnson DW. Dietary protein restriction as a treatment for slowing chronic kidney disease progression: the case against. Nephrology (Carlton). 2006 Feb;11(1):58-62.

⁴ Paddon-Jones D, Sheffield-Moore M, Katsanos CS, Zhang XJ, Wolfe RR. Differential stimulation of muscle protein synthesis in elderly humans following isocaloric ingestion of amino acids or whey protein. Exp Gerontol. 2006 Feb;41(2):215-9.

⁵ Paddon-Jones D, Sheffield-Moore M, Urban RJ, Aarsland A, Wolfe RR, Ferrando AA. The catabolic effects of prolonged inactivity and acute hypercortisolemia are offset by dietary supplementation. J Clin Endocrinol Metab. 2005 Mar;90(3):1453-9.

The most frequently asked question by new readers of Dr. Walser's book, "Coping with Kidney Disease; How to Avoid Dialysis" is, "What will my doctor tell me about this?" The reply in the US is, "not much." The problem is nephrologists don't want to spend the time to get the kidney patient convinced that they need to change their diet (it's easier to get them to go on dialysis since death within 6 months is the alternative), and nephrologists don't know about the essential amino acid (EAA) supplements.

In talking about diets without EAA, one reviewer said, "Despite much research in this area, the value of protein restriction remains contentious. A major concern over their use is that they may induce malnutrition. This is of critical importance since mortality rates are significantly increased in individuals who are malnourished when dialysis is initiated."¹

Recently Dr. William Mitch, one of Walser's students and Dr. David Johnson, of Brisbane, Australia, had a debate in *Nephrology (Carlson)*, a well known kidney journal. Dr. Mitch was arguing for the low protein diet and said the diets are safe and do not cause malnutrition with proper planning, however, he added that non-compliance is a problem.²

His opponent, Dr. Johnson, listed 6 problems with low protein diets. First on the list is non-compliance (you won't follow the diet and take your supplements) (ii) the trials have confusing results (due to non-compliance?) (iii) the evidence may be biased to favor trials with good results; (iv) the optimal level and duration of dietary protein intake have not been defined; (v) diets may not be better than controlling blood pressure (he doesn't believe the Gansevoort studies); and (vi) low-protein diets are associated with declines in nutritional markers (your serum albumin) in chronic kidney disease populations, which already have a high prevalence of malnutrition (you can't get enough protein if you have kidney disease and he doesn't know or believe in essential amino acid supplements).³ (The parenthetic remarks are mine)

Notice that the main complaint of both Drs. Mitch and Johnson are with malnutrition which is a problem already. As Dr. Walser told me, "It's an oxymoron, the kidney patient needs more protein but more protein hurts the kidney patient." What both Dr. Mitch and Dr. Johnson fail to realize is the use of the essential amino acids will prevent malnutrition.

Again, we go to Dr. Robert Wolfe, an eminent burn physician, who is studying the use of essential amino acids to stimulate protein synthesis in the body (burn patients have difficulty in nutrition similar to kidney patients). Dr. Wolfe has published over 400 papers on this subject. He has found that EAA are twice as effective as milk protein at stimulating muscle synthesis,⁴ and can do so even in cases of prolonged bed-rest and stress.⁵ Wolfe has shown the EAA effectively prevent malnutrition in a wide variety of diseases and low activity.

I often pointed out to Dr. Walser that Dr. Wolfe had laid the intellectual basis for the profound effect of EAA in preventing malnutrition in kidney patients which Dr. Walser had so clearly demonstrated.