Commentary

High-Protein Diets: Putting Rumors to Rest

"One could not be a successful scientist without realizing that, in contrast to the popular conception supported by newspapers and mothers of scientists, a goodly number of scientists are not only narrow-minded and dull, but also just stupid."

-- J. D. Watson. "The Double Helix"

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Some well-meaning but misinformed nutrition authorities claim that high-protein diet possess significant health risks. For example, American Heart Association’s (AHA) Nutrition Committee claims that “Individually who follow these [high-protein] diets are risk for... potential cardiac, renal, bone, and liver abnormalities overall.”

Liver abnormalities? That is physiological nonsense. Protein is needed not only to promote liver tissue repair, but also to provide lipotropic agents such as methionine and choline for the conversion of fats to lipoprotein for removal from the liver, thus preventing fatty infiltration.² And when it comes to kidney function, there are no data in the scientific literature demonstrating the healthy kidneys will be damaged by the increased demands of protein consumed in quantities above the RDA.² Furthermore, real world examples support this contention since kidney problems are nonexistent in the bodybuilding community in which high-protein intake has been the norm for over half a century.¹

The AHA Nutrition Committee also suggests that high-protein intake may increase blood pressure. However, there is no scientific evidence whatsoever supporting this contention. In fact, a negative correlation has been shown between protein intake and systolic and diastolic blood pressures in several epidemiological surveys.² Further, AHA Nutrition Committee claims that high-protein intake has detrimental effects on bone health. In reality, dietary protein increases circulating IGF-1, a growth factor that is thought to play an important role in bone formation. Indeed, several studies have examined the impact of protein supplementation in patients with recent hip fractures. For example, Dr. Schurch and colleagues reported that supplementation with 20 g protein/day for 6
months increased blood IGF-levels and reduced the rate of bone loss in the contralateral hip during the year after the fracture.\textsuperscript{4}

Finally, the AHA Nutrition Committee ignores the fact that energy restriction increases protein requirements. It has been known for about a half century that inadequate energy intake leads to increased protein needs.\textsuperscript{2} For example, Dr. Butterfield has shown that feeding as much as 2 g protein/kg/day to men running 5 or 10 miles per day at 65\% to 75\% of their VO\textsubscript{2max} is insufficient to maintain nitrogen balance when energy intake is inadequate by as little as 100 kcal/day.\textsuperscript{3} Thus, when trying to lose weight, it is important to keep protein levels high. The reduction in calories needed to lose weight should be at the expense of the fats and carbohydrates, not protein.Obviously, AHA Nutrition Committee’s statement on dietary protein contains misleading and incorrect information. Certainly, such public warnings should be based on a thorough analysis of the scientific literature, not unsubstantiated fears and misrepresentations. For individuals with normal kidney function, the risks of high-protein intake are minimal.

References