Dietary Protein and Weight Reduction

To the Editor:

I read with interest the American Heart Association (AHA) Science Advisory on high-protein diets in the October 9, 2001, issue of Circulation. Let me preface this response by saying that I am neither a medical doctor nor a registered dietitian. I am, however, a healthy, 29-year-old woman of normal weight who follows the Zone diet.1-3 I did not begin the diet as a means for weight loss but rather as a guideline for healthful eating. I would like to bring the following points to the committee’s attention.

- The amount of protein recommended for the Zone does not exceed established AHA standards (<100 g/d). According to the Zone requirements, the average American woman who exercises moderately should eat no more than 77 g/d of protein.
- Fruits, vegetables, and low-fat milk products are abundant in the Zone, and cereals and grains may be restricted but need not be eliminated (steel-cut oatmeal is a recommended Zone food). According to the Zone carbohydrate requirements, the average American woman would meet AHA standards, which require at least 100 g/d.
- The Zone does not contribute to excess total fat, saturated fat, or cholesterol intake. Soy- and vegetable-based meat substitutes, tofu, and egg substitute are healthy sources of protein that contain little or no saturated fat. Necessary additional fat not found in protein sources comes from monounsaturated fats, eg, olive oil, nuts, and avocado. By choosing protein sources carefully, the average American woman on the Zone has a 16 g/d intake of healthy monounsaturated fats.

The Zone diet provides adequate nutrients and appears to comply with AHA dietary guidelines.4 Like the AHA, the Zone recommends 5 or more servings of fruits and vegetables per day, increased intake of dietary fiber, reduced intake of foods and beverages with added sugars, and limited intake of partially hydrogenated vegetable oils and trans-fatty acids. In addition, the Zone advocates at least 2 fish servings per week and a fish-oil supplement to reap the beneficial effects of omega-3 fatty acids, and it recommends a vitamin E supplement to meet antioxidant requirements.

I believe that the Zone diet has been unfairly included among other diets that may or may not have deleterious effects. My observations pertain only to the Zone diet and are based solely on personal experience and on my interpretations of the theories put forth by Dr Barry Sears, the Zone’s founder. I do not consider the Zone a high-protein diet but rather a balanced and healthful eating plan that, on closer inspection, appears to meet AHA guidelines.

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Response

The Nutrition Committee of The American Heart Association (AHA) appreciated the thoughtful letter submitted by Christina Chambers in response to our report,1 and we commend her efforts to ingest 5 or more servings of fruits and vegetables a day, increase her intake of dietary fiber, reduce intake of sugar, limit her intake of trans and saturated fatty acids, and consume at least 2 fish servings per week. We concur that these strategies indeed conform to the AHA dietary guidelines and commend her success in achieving these goals. Nevertheless, we continue to have reservations concerning The Zone diet as proposed in the publications by Dr Sears and employed by many Americans. Our main concern centers on the consumption of protein. Although a woman of Ms Chambers’ size might eat no more than 77 grams of protein, many larger individuals could easily consume more than 100 g/d. In fact, the average protein requirement for a 70-kilogram man is only 56 g/d. As we pointed out in our publication, the human body is not able to store excess protein, and thus metabolic burden is placed on the liver and kidney in order to metabolize and to excrete the excess nitrogen.

Although some healthy individuals may be able to tolerate amounts of protein in excess of daily requirements, many individuals with diabetes or insulin resistance, incipient renal or hepatic disease, or a high propensity for osteoporosis may suffer adverse metabolic consequences from continued ingestion of excess amounts of protein. On the other hand, there is no evidence that ingestion of carbohydrates contained in fruits, vegetables, and whole grain products poses potential metabolic harm. A person achieving just the minimum carbohydrate intake (100 g/d) runs the risk that nutrients contained in whole grain products, fruits, and vegetables will be minimized. Finally, Ms Chambers has been extremely careful in her attempts to derive her increased protein intake from vegetable-based meat substitutes and fish, although this has not been the practice of most Americans who attempt to follow high-protein diets. The majority of such individuals inadvertently consume excessive amounts of saturated fat and cholesterol along with the increased animal products, and these have been shown conclusively to increase cardiovascular disease risk. For all these reasons, we continue to include The Zone diet among the high-protein diets that we believe should be viewed with extreme caution.

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