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The dangers of self-monitored dieting: What are our patients really doing?

FEW PEOPLE ARE NEUTRAL when it comes to high-protein, low-carbohydrate diets. Either you feel that they are the greatest thing since sliced bread (Oops! Make that a burger), or you feel that they are a disaster waiting to happen.

The passion for this topic has been fueled by authors of best-selling diet books and by their critics, who often represent a more moderate, evidence-based approach to weight loss. What gets lost in the rhetoric is the history and science behind the claims and accusations. That is why I find the article by Blackburn et al¹ in this issue so useful. The authors trace the appeal and controversy behind these diets in the face of the sobering fact that more than half of Americans are overweight, enthralled with the concept of supersized portions of food and beverages, and not inclined to exercise regularly.

■ RECOGNIZING THE DIFFERENCES BETWEEN DIETS

Although we often categorize many of today's popular diets as "high-protein, low-carbohydrate," Blackburn et al point out that they may differ substantially. By carefully examining the nutrient composition of these diets, we can better understand the fact and fiction behind the concepts of ketosis and insulin resistance.

The ability to achieve ketosis on any of these popular diets is limited. Our experience as registered dietitians, counseling patients who have tried these diets, indicates that most patients follow these diets without monitoring or testing. They do not monitor ketones daily, so they really don't know if they are in or out of ketosis. They may not have had a lipid profile taken before, during, or after being on the

diet, so they do not know the impact of the diet on their lipid levels.

Both men and women lose weight on these regimens. Men self-report losing more weight initially than women, but this may be primarily attributed to a greater water loss. Since men generally have more muscle mass than women, they have larger glycogen stores, which, when depleted, result in a larger fluid loss from the water bound to the glycogen.

■ WHAT REALLY HAPPENS ON SELF-MONITORED DIETS?

For the clinician, self-monitored diets leave many questions unanswered. Is the patient adherent to the proposed meal plan and foods to avoid and include? Does the patient achieve and sustain ketosis and a change in lipid profile? What are the long-term consequences to one's health on these diets?

See related article, pages 761-774.

Anderson et al² attempted to answer this last question by comparing eight popular diets and by developing meal plans based on an isocaloric level of 1,600 kcal and the authors' recommendations for which foods to include and avoid on the diet. Anderson et al used formulae to estimate the impact on the cardiovascular risk factors—total cholesterol, LDL cholesterol, and triglycerides—based on the plans' nutrient content for carbohydrate; protein; total fat; saturated, monounsaturated, and polyunsaturated fats; cholesterol; fiber; and sugar.

The limitation of this study is the simulation of a typical intake, assuming patient adherence to the diet plan, and sample food selections that are representative of the avail-

Most patients diet without monitoring ketones or lipid levels



able choices. No patients were actually followed on these diets; the level of risk was only calculated. They found that the diets higher in the percent of fat and cholesterol and lower in fiber (Atkins, Protein Power) increased cardiac risk the most. Those with more moderate fat and cholesterol levels (Sugar Busters, The Zone) presented a more moderate cardiac risk; however, this was still a greater risk than with more balanced and varied diets (American Diabetes Association, High-Fiber, Ornish).

■ HOW SHOULD PHYSICIANS COUNSEL DIETING PATIENTS?

The physician will most likely confront the issue of whether patients who are on self-prescribed weight-loss diets are harming themselves. Should a clinician suggest discontinuation of self-administered weight-loss programs in favor of a more science-based approach?

As a registered dietitian, I welcome the discussion by Blackburn et al of which nutrients are missing from—and included in—these diets, as well as the potential long-term consequences from these regimens. Under diligent medical care, these diets can serve a useful, short-term purpose for individuals who need to lose a large amount of weight quickly for medical reasons.³ Careful monitoring of electrolytes is absolutely essential, as is the gradual transition to a more balanced, carbohydrate-rich diet for long-term maintenance of the lost weight.

What are the benefits of referring patients to a registered dietitian for nutrition therapy? Patients report that goals are reasonable and achievable when developed with the guidance

of a registered dietitian, and that ongoing encouragement, feedback, individualization, and accountability enable them to achieve greater short-term and long-term success (unpublished observations). Registered dietitians have the ability as experts in the field of nutrition to guide patients through weight loss and the more difficult challenge of weight maintenance, designing programs that fit the individual's lifestyle and food preferences, and taking into account the patient's medical and diet history. Most people know what to do but need help applying it. As Blackburn et al point out, anyone can lose weight on a diet, but the hard part is maintaining the loss.¹

Poor eating habits are not easily changed. Change requires ongoing support and guidance for long-term success. Most unsettling are persons who cavalierly decide to follow high-protein, low-carbohydrate, diets, departing substantially from their usual meal plan. Without guidance or monitoring, they are at the greatest risk for dangerous complications and weight-loss failure. The most tragic consequence is that these dieters place the blame for failure squarely on their own shoulders rather than on the reality that these diets are not the ticket to long-term, sustained weight loss. ■

■ REFERENCES

1. Blackburn GL, Phillips JCC, Morreale S. Physician's guide to popular low-carbohydrate weight-loss diets. *Cleve Clin J Med* 2001; 68:761–774.
2. Anderson JW, Konz EC, Jenkins DJ. Health advantages and disadvantages of weight-reducing diets: a computer analysis and critical review. *J Am Coll Nutr* 2000;19:578–590.
3. Walters JK, Hoogwerf BJ, Reddy SSK. The protein-sparing modified fast for obesity-related medical problems. *Cleve Clin J Med* 1997; 64:242–244.

Changing eating habits requires ongoing support and guidance