

# Finding the Right Fit for Meal Planning

MARION J. FRANZ, MS, RD, CDE

**N**uttall (this issue, F.Q. Nuttall, p. 1039–42) is to be congratulated on articulating a constant CHO meal-planning approach that can be used by medical professionals and individuals with diabetes. Central to this approach is determining the usual amount of CHO eaten at meals and/or snacks by the person with diabetes, keeping that amount constant, and covering with the appropriate amount of insulin.

A major emphasis of the Diabetes Care and Education Practice Group of the American Dietetic Association is to make professionals aware of the wide array of methods and materials available for use by nutrition counselors to individualize meal planning. In 1987 they published *Meal Planning Approaches in the Nutrition Management of the Person with Diabetes* (1), which outlines many existing educational tools. These range from basic or general guidelines or menus to more complex systems such as the exchange system, point counting, total available CHO, high fiber/high CHO, CHO counting, or constant CHO. This publication is currently undergoing revision. It is the responsibility of educators to select methods and materials that patients can understand and, more importantly, use.

## The goal of meal planning for individuals with diabetes

The primary goal of meal planning is to help patients return and maintain their blood glucose levels to as near a normal range as possible. Various strategies and educational materials are available that can assist patients to achieve this goal. Nuttall has outlined another approach that can be used.

Nutritional recommendations, if they are not achievable in the real world, are worthless, as are educational methods and materials patients cannot understand or use. For instance, although a diet higher in monounsaturated fatty acids produces desirable results in research settings, in the real world it is difficult to implement this type of diet on any long-term basis because of the limited number of foods containing predominantly monounsaturated fats. Similarly, patients who do not understand the exchange list system should not be taught this system. On the other hand, many patients do understand the system and can use it effectively to make food-related decisions. Like any other educational tool, its usefulness is dependent on how it is taught and used. If used appropriately, it can assist patients to group foods in a logical manner and can provide needed flexibility in meal planning. If used inappropriately, it can be a rigid tool that does not allow for flexibility. The educa-

tional tool is the same; the difference is in how it is used.

Poor compliance, even if the patient desires to do better, results from recommendations that are difficult to achieve in the real world and from using educational materials or methods that patients do not understand.

## RD and MD responsibilities

The physician or referral source is asked to supply the RD (nutrition counselor) with information on diagnosis; treatment modalities and response to date; laboratory values for blood glucose, lipids, and GHb; blood pressure; medical clearance or limitations for exercise; and, if appropriate, psychosocial and economic data. The physician's goal for the patient's diabetes management and nutrition intervention should also be communicated to the RD (2).

A primary responsibility of the RD is to determine an appropriate diet prescription (meal plan) for the person with diabetes and to provide education. This begins with an assessment of the patient's needs, goals, abilities, past habits, etc., and continues with individualization to meet these needs. The RD should determine the energy level, macronutrient composition, number of meals and/or snacks, timing of meals, and/or the need for supplements (2). A 1500 calorie diet prescription (or worse, 1000 calories) cannot be individualized if it is not based on an assessment of what the patient is currently doing, and changes the patient is willing and/or needs to make.

The RD also should be responsible for selecting appropriate educational materials and educational interventions, as well as providing the necessary education. Two-way communication between the physician and the RD (as well as other team members) is essential. The RD also needs to evaluate the outcomes—clinical, behavioral, educational, quality-of-life—of nutrition intervention and notify the MD or referral

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 FROM THE INTERNATIONAL DIABETES CENTER, MINNEAPOLIS, MINNESOTA.

ADDRESS CORRESPONDENCE AND REPRINT REQUESTS TO MARION FRANZ, MS, RD, CDE, INTERNATIONAL DIABETES CENTER, 5000 WEST 39TH STREET, MINNEAPOLIS, MN 55416.

CHO, CARBOHYDRATE; RD, REGISTERED DIETITIAN; NIDDM, NON-INSULIN-DEPENDENT DIABETES MELLITUS.

source as to the successfulness of the nutrition intervention. If desired blood glucose levels have not been achieved, and if the diet has been as effective as it can, or as effective as the patient is willing, the MD can then decide if a therapeutic change is needed, such as adding or changing doses of oral hypoglycemic agents or insulin.

The majority of patients learn in stages and make lifestyle changes in small steps. Educational tools should be selected that are appropriate for the steps in this process. Systems of care need to be designed keeping this concept in mind.

### **Integrating nutrition into diabetes management**

In 1979, the American Diabetes Association nutrition principles paper made the following statement: "Insulin-dependent diabetic persons may find it easier to adapt their insulin regimens than to change basic eating habits. A suitable meal plan acceptable to these individuals should be identified and the insulin treatment integrated with the dietary program" (3). This was reiterated in the 1986 nutrition position statement (4). Following this principle allows for more flexibility in meal planning for individuals who need to take injected insulin. Nuttall has outlined one method that can be used. However, many meal planning approaches exist that also can be used. The patient needs to eat as consistently as possible, monitor blood glucose levels, and learn to make appropriate changes in insulin doses based on observed patterns of blood glucose levels. Once this basic step has been mastered and a basic insulin dose determined, patients can move to a more intensive form of insulin therapy and learn to make compensatory and anticipatory insulin adjustments based on changes in meal planning.

For patients with NIDDM, if the goal is to return blood glucose levels to normal, a variety of strategies can be

used. Weight loss can be helpful, but even if the patient cannot be successful with weight loss, choosing more appropriate foods, distributing food intake, and exercise are some other strategies that can be used to meet the goal. If this is not successful, oral agents or insulin may be needed.

### **Other nutrient concerns—protein and fat**

Furthermore, today, more than ever, it is realized that diabetes is not only a disease of CHO intolerance, and meal planning that addresses only the CHO content of foods is archaic. With increased interest in protein and its possible association with renal function, professionals also need to know the amount of protein patients are consuming. If renal function becomes compromised, patients may also need to know how to begin cutting back on protein in their diet. Fat content of foods has long been a concern. Not only because of the macrovascular complications associated with diabetes, but because foods high in fat obviously are also high in calories. Therefore, in dealing with a population where weight is often a concern, patients need to know what foods contain significant amounts of fat and how to limit the amount of fat and/or calories they eat. Health professionals need a system for meal planning that addresses all three macronutrients. Patients may not need to know the details containing the grams of protein and fat (although for patients who can understand grams, this can be helpful when reading food labels) in their diet, but they do need to know how to select appropriate foods in reasonable portion sizes. To only emphasize CHO content of foods may assist in the restoration of glucose control but may be too limited of an approach to meal planning. Although, Nuttall may only be concerned with the CHO content of the diet, other professionals in the field might question this approach.

### **The bottom line**

All of this reinforces the importance of using knowledgeable RDs as team members involved in diabetes management and education. With assessment, an appropriate dietary prescription can be determined. Implementation involves selecting methods and/or educational materials that can be individualized and meet the patient's needs.

Just as an armament of insulin regimens and medications exist for diabetes management, we also need to have a variety of approaches for nutrition care. Although all medications are excellent, they are only effective if used correctly. This same principle applies to nutrition care. Methods, techniques, and teaching tools that support the goals of diabetes nutrition management should be used. Knowledgeable and skilled professionals can then select appropriate approaches that can assist patients to achieve the primary goals of care. Nuttall has outlined another approach that can be used, reinforcing the point that there is no one best way to accomplish nutrition-related goals.

### **References**

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4. American Diabetes Association Position Statement: Nutritional recommendations and principles for individuals with diabetes mellitus:1986. *Diabetes Care* 10:126-32, 1987