Preface

From Pyramids to Plates to Patterns: Perspectives on Meal Planning
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There is wide agreement that nutrition is a cornerstone of diabetes management and that an individualized medical nutrition therapy program, preferably provided by a registered dietitian, is recommended for all individuals with diabetes (1,2). However, the debate can get heated when the discussion turns to exactly what defines the meal plan for diabetics, particularly as it relates to the recommended level of carbohydrate (3). At least in type 2 diabetes, there is insufficient evidence to suggest that any particular macronutrient distribution is superior (4). Thus, the American Diabetes Association (ADA) position has been, and continues to be, that there is no single dietary distribution of calories among carbohydrate, protein, and fat for people with diabetes and that macronutrient distribution should be individualized (1,2). Therefore, the most important variable influencing the meal plan should be what the individual with diabetes is willing and able to do.

I have long been interested in nutrition as it relates to public health and how we, as health care professionals, influence consumer behavior. Interestingly, some of the highlights of my career have been punctuated with the release and periodic revision of the U.S. Department of Agriculture’s (USDA) Dietary Guidelines. When these guidelines first came out in 1980, I had just started a 2-year job at the Joslin Diabetes Center in Boston, Mass. The initial guidelines focused on nutrients to consume more of (i.e., starch and fiber) or less of (i.e., fat, saturated fat, cholesterol, sodium, and alcohol). In 1992, when I moved from running a diabetes center in New Jersey back to Joslin in Boston, I said good-bye to the “Basic 4” and hello to the “Food Pyramid”—the USDA’s latest iteration of the guidelines. I gave an address at the 2005 ADA Scientific Sessions that reflected on public health nutrition messages and explored the pros and cons of food pyramids (5). Although the diabetes education community had been using the “plate method” for some time to teach basic nutrition, the USDA’s release of “My Plate” in 2011 served as a visual aid to help promote healthy eating patterns as the previous Food Pyramid was retired.

In the most recent update of the USDA’s guidelines, released in 2015, the emphasis of the message for the public is more on food patterns and less on nutrients (Table 1) (6). Nutrition professor Marion Nestle makes an interesting observation in her blog, Food Politics (7), however. She points out the USDA guidelines succeed in focusing on patterns when it comes to talking about foods to eat more of (details describing a healthy eating pattern specify more vegetables, fruits, whole grains, fat-free or low-fat dairy, legumes, nuts, seeds, lean meats, and oils) but revert to nutrients when describing foods to limit (<10% from added sugars, <10% from saturated fats, and <2,300 mg of sodium). Nestle sug-
suggests that this may be for political reasons, with the USDA reacting to pressure from industry to not say “eat less meat,” “eat less processed food,” and “drink fewer sugar-sweetened beverages.” Whatever the reason, consumers are still left confused and needing a calculator to figure out the percentages of exactly what to eat!

It should be pointed out that, although talking about food groups to eat or avoid, rather than specific nutrients to eat or avoid, is certainly more consumer-friendly and realistic, data from the National Health and Nutrition Examination Survey show that typical eating patterns still do not align well with the USDA’s guidelines. Figure 1 provides a snapshot of current intake levels compared to recommendations for the food groups (and oils), as well as calories from added sugars, saturated fats, and sodium (8). The orange bars represent the percentage of Americans who are not meeting the recommendations and thus indicate where there is room for improvement. When compared to the Healthy U.S.-Style Pattern:

- More than half of the population is meeting or exceeding total grain and total protein foods recommendations
- Most Americans exceed the recommendations for added sugars, saturated fats, and sodium

The emphasis on diet quality and healthy food patterns is also taking hold in recommendations for diabetes and prediabetes meal planning. The plate method has been recommended as a tool for simplified meal planning emphasizing healthy eating patterns. However, it was only recently that a randomized controlled trial demonstrated its comparative effectiveness to carbohydrate counting (9). A shift is occurring from meal plans based on percentages of carbohydrate, protein, and fat to eating patterns such as the Mediterranean, DASH (Dietary Approaches to Stop Hypertension), and vegetarian eating patterns, as outlined in several important guidelines and publications (1,2,10,11). Research is showing that consuming a diet containing high-quality foods, as measured by the Healthy Eating Index or the Alternative Healthy Eating Index, is linked with reduced risk of type 2 diabetes (12) and reduced all-cause mortality (13). Thus, although guidelines and research are promoting the use of diet patterns featuring high-quality, nutrient-dense foods, many clinicians are seeking information on exactly how to operationalize these recommendations.

This Diabetes Spectrum From Research to Practice section features five articles with a focus on healthy eating patterns. The first three summarize evidence-based research on the Mediterranean, DASH, and vegetarian/plant-based eating patterns. Jackie L. Boucher provides us with a review of the latest research on the Mediterranean diet (p. 72). We learn that this eating pattern not only provides a protective effect against the development of diabetes but, in people with type 2 diabetes, may...
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