

# Food, Culture, and Diabetes in the United States

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**W**hat do people in the United States eat? Is it meat and potatoes?

Things have changed in the United States as the population has grown to include many different ethnic and cultural groups, and this has resulted in diverse food preferences and eating habits. Asian Indians are one of the fastest growing immigrant groups in the United States. African Americans are numerically the largest minority group, although the Latino population is expected to be larger than the African-American population by the middle of the next century.<sup>1</sup>

Culture is defined as the knowledge, beliefs, customs, and habits a group of people share. These are not inherited behaviors, but learned. Culture is passed on from generation to generation.<sup>1</sup> Each ethnic group has its own culturally based foods and food habits. These traditions have been influenced and adapted through contact with the mainstream culture.

Conversely, the foods of mainstream culture have been influenced by the presence of these ethnic cultures. Fast-food restaurants and other take-out restaurants now offer such wide-ranging selections as pizza, tacos, falafel, tandoori, egg rolls, and hamburgers.<sup>1</sup>

Thus, the American diet is a combination of many cultures and cuisines. To understand it, one must not only study the traditional foods and food habits of the many minority groups, but also the interaction between the majority culture and the cultures of these smaller groups.

Seventeen million people in the United States have diabetes. Key to the increasing prevalence of diabetes is the rapid growth of the disease in high-risk

populations such as African Americans, Native Americans, Latinos, and Asian Americans. The growth in obesity, as well as an aging population, have also contributed to this increase.<sup>2,3</sup>

This article examines the ethnic and regional food practices of three large segments of the U.S. population: African Americans, Asian Indians, and Mexican Americans, all groups with a high incidence of type 2 diabetes. The incidence of type 2 diabetes is also high and increasing among Chinese Americans and Native Americans, who also have unique food preferences, habits, and issues. However, discussion of these groups is beyond the scope of this article.

## Nutrition Considerations for African Americans

The rate of type 2 diabetes among African Americans is 1.6 times higher than that of the total U.S. population. This may be related to higher obesity rates among African-American women.<sup>4</sup> Diabetes educators should be aware of the increased incidence of type 2 diabetes, hypertension, and obesity in African Americans.<sup>4</sup> All of these conditions require nutrition intervention and skill in the cultural aspects of working with these clients.

The African-American diet is based in part on certain health beliefs that have been passed down through generations and are still observed today. Socioeconomic status and education level are important in the meal planning and nutrition education of African-American patients. Financial and physical constraints, available cooking facilities, and family support also should be taken into consideration. Health literacy is also key,

especially when educators are communicating with patients about food choices and their likely impact on health.<sup>5</sup>

Traditional African-American fare, sometimes referred to as “soul food,” is based in part on food practices and customs listed below. Many of these customs and practices are shared by white Americans in the southern United States, particularly those of lower socioeconomic level or living in rural areas.

- A variety of green leafy vegetables, such as collard, mustard, turnip, and dandelion greens; kale; spinach; and pokeweed are known collectively as “greens” and are a staple of soul food.
- Corn is a mainstay food item.
- “Vegetable plates,” which traditionally consist of vegetables and starches and are served with cornbread or yeast rolls and “spring onions” (scallions) or sliced raw or cooked yellow onions.
- Starchy vegetables, including dried beans (pinto, navy, lima, butter, kidney); fresh or dried peas (black-eyed, field, green, crowder, butter); beans with pork; corn; and sweet or white potatoes are quite popular. These foods have a high protein content, especially when combined with grains. Popular combinations include “hoppin john” (rice with black-eyed peas), red kidney beans and rice, and succotash (corn with lima beans).
- Grains such as rice, grits, cornbread, biscuits, muffins, dry and cooked cereals, and macaroni are also basic.<sup>5</sup>
- Meats are often breaded and fried. A variety of beef and pork cuts, poultry, and fish are consumed, as well as oxtail, tripe, and tongue. Frying has traditionally been a preferred method of meat preparation because of the

short cooking time, a feature that is practical during the heat of summer.

- Whole milk, commonly referred to as “sweet milk,” and buttermilk are popular choices. Buttermilk is a common ingredient in biscuits, cornbread, and batter for fried chicken. Two percent and nonfat milk and powdered milk are also becoming more popular because of the increasing awareness of the need to reduce total fat, cholesterol, and saturated fat in the diet.<sup>5</sup>

For many African Americans, decreasing the cholesterol, fat, and sodium content of the diet and focusing on weight management are significant goals to help reduce the risk of diabetes complications. Toward that end, it is helpful that African-American fare emphasizes vegetables and complex carbohydrates.

Helping patients modify recipes for foods they typically eat is valuable in achieving and maintaining adherence to recommended dietary changes. A study at the diabetes clinic of Grady Memorial Hospital in Atlanta, Ga., found that the primary reason for patients not following food recommendations was that the recommended diet was not familiar to them and contained unfamiliar food choices.<sup>6</sup>

A reproducible handout offering nutrition information for African-American and southern traditional clients can be found on p. 193. Table 1 provides an example of typical and modified meals for an African-American patient.

**Nutrition Considerations for Asian Indians**

Health issues facing the Asian-Indian immigrant population include diabetes, hypertension, cardiovascular disease, and the associated complications from these conditions.<sup>7</sup>

The Asian-Indian community is very diverse based on the region of origin within India and the form of religion practiced. Hinduism is the predominant religion among Indians, followed by Islam, Buddhism, Jainism, Sikhism, Zoroastrianism, Christianity, and Judaism. The followers of these different

**Table 1. Sample Dietary Modification for an African-American Patient With Diabetes**

<b>Meal</b>	<b>Content</b>
Breakfast, typical	1/2 cup grits, 2 fried eggs, 2 sausage patties, 2 buttermilk biscuits, coffee with sugar, 1 Tbsp. margarine
Breakfast, modified	1/4 cup egg substitute, 1 homemade sausage, 2 slices whole wheat toast, 1 cup cubed cantaloupe, coffee with sugar substitute, 1 tsp. margarine
Lunch, typical	1 fried chicken leg quarter, 1/2 cup mashed potatoes, 1/2 cup green beans seasoned with ham, 1 medium tomato, 1 hot roll, 1 Tbsp. margarine, 1/2 cup blackberry cobbler, iced tea with lemon and sugar
Lunch, modified	1 skinless baked chicken quarter, green beans seasoned with fat-free low-sodium broth, 1 tsp. margarine, 1 1/4 cup strawberries with sugar substitute, iced tea with lemon and sugar substitute

religions observe different dietary laws and codes for fasting and feasting that influence their eating patterns.

A survey of food consumption practices among 73 Asian-Indian adults in the New York City and Washington, D.C., areas showed that acculturation of this population in the United States has led to more frequent selection of American or other ethnic foods for main meals and replacement of traditional sweets with cookies, doughnuts, and other Western pastries. Length of stay in the United States had an effect on the choice of fats used in cooking; those who had lived here more than 5 years appeared to have decreased their consumption of butter and ghee (clarified butter) and used margarine as an alternative. These individuals continued to consume rice, chapati (flat bread), yogurt, dhal (a spiced lentil dish), and curried vegetables. This group reported an increase in intake of whole grain breads, fish, poultry, meat, potato chips, cakes, cheese, fruit, and alcoholic and nonalcoholic beverages (other than water) after immigration to the United States.<sup>8</sup>

Thus, the diet of Asian Indians in the United States has changed from one featuring low-fat, high-fiber foods to one characterized by higher-fat animal protein, low fiber, and high levels of saturated fat. There is an increased tendency

among Asian Indians in America to consume fast foods and convenience foods.

Other factors that may increase the risk for chronic disease in this group include sedentary and stressful lifestyles. Insulin resistance in Asian Indians is associated with a number of metabolic abnormalities that are demonstrated risk factors for coronary heart disease. These include elevated glucose, insulin, and triglyceride levels.<sup>8</sup>

Table 2 provides an example of a typical and modified meal for an Asian-Indian patient.

**Nutrition Considerations for Mexican Americans**

Food is a big part of Mexican-American life. Unfortunately, so is a high incidence of type 2 diabetes. Prevention and treatment programs for diabetes targeting this population must include foods commonly found in the traditional diet.

When working with Mexican-American patients, health care teams should assess the level of acculturation to mainstream American dietary practices. In addition, diabetes education providers much determine the primary language spoken at the patients’ home and the degree to which patients rely on folk remedies for health issues. For those using folk remedies, providers must inquire about which foods are consid-

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**Table 2. Sample Dietary Modification for an Asian-Indian Patient With Diabetes**

Meal	Content
Lunch, typical	2 parathas (stuffed flatbreads), 1 cup spinach curry, 1/2 cup potato curry, 1/2 cup raita (yogurt salad), 1 banana, 3 tsp. oil (for cooking), 1 tsp. ghee
Lunch, modified	2 chapati, 1 cup spinach curry, 1/2 cup tomato dhal, 1/2 cup low-fat yogurt raita, 1/2 banana, 2 tsp. oil (for cooking)

ered “cold” or “hot” for healing purposes and determine which conditions are treated by each.<sup>9</sup>

Nutrition educators should emphasize positive food practices related to traditional health beliefs and dietary customs. For example, the traditional Mexican diet is low in fat and high in fiber. Therefore, maintaining or returning to traditional diets may be beneficial. Educators should encourage the consumption of a variety of healthy foods, particularly those that are familiar and culturally acceptable (i.e., corn, tortillas, rice, and beans). Misconceptions and myths about dietary recommendations should be dispelled.<sup>9</sup>

A reproducible handout offering basic nutrition information for Mexican-American clients can be found on p. 194. Table 3 provides an example of typical and modified meals for a Mexican-American patient.

**Summary**

This brief review of nutrition-related cultural variations among three ethnic populations demonstrates the crucial importance of asking patients about their specific food habits in order to have any hope of providing culturally appropriate advice for modifying traditional eating patterns to prevent and treat type 2 diabetes. Appropriate help in this regard will almost always require consultation with a registered dietitian. Involving family members in nutrition counseling sessions is also effective in promoting interest in following the recommendations.

Table 4 and the following reference list provide additional resources that may be useful in counseling individual patients.

**REFERENCES**

<sup>1</sup>Kittler PG, Sucher K: *Food and Culture in America*. New York, Van Nostrand Reinhold, 1989

<sup>2</sup>Centers for Disease Control and Prevention. Available online at [www.cdc.gov/diabetes/pubs/factsheet.htm](http://www.cdc.gov/diabetes/pubs/factsheet.htm)

<sup>3</sup>U.S. Census Bureau. Available online at <http://www.census.gov/prod/www/statistical-abstract-us.html>

<sup>4</sup>American Association of Diabetes Educators: Cultural sensitivity: definition, application, and recommendations for diabetes educators (Position Statement). *Diabetes Educ* 28:922-927, 2002

<sup>5</sup>Ethnic Food Practice Series: Traditional Southern. Chicago and Alexandria, Va., American Dietetic Association and American Diabetes Association, 1995

<sup>6</sup>Goldsmith MD, Davidson JK: Southern ethnic food preferences and exchange values for the diabetic diet. *J Am Diet Assoc* 70:61-64, 1977

<sup>7</sup>*Indian Foods: AAPI's Guide to Nutrition, Health and Diabetes*. Oakbrook Terrace, Ill., American Association of Physicians of Indian Origin, 2002

<sup>8</sup>*Ethnic and Regional Food Practices: Indian and Pakistani Customs and Holidays*. 2nd ed. Chicago and Alexandria, Va., American Dietetic Association and American Diabetes Association, 2000

<sup>9</sup>*Ethnic and Regional Food Practices: Mexican American Food practice, Customs, and Holidays*. Chicago and Alexandria, Va., American Dietetic Association and American Diabetes Association, 1998

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**Table 3. Sample Dietary Modification for a Mexican-American Patient With Diabetes**

Meal	Content
Breakfast, typical	3/4 cup refried beans with chorizo (Mexican sausage), 2-3 corn tortillas, 8 oz. coffee with 3 oz. milk
Breakfast, modified	1/3 cup boiled beans with chili sauce, 2 corn tortillas, 8 oz. coffee with 3 oz. low-fat milk, 1 small banana
Lunch, typical	2 cups chicken soup with assorted vegetables and 3 oz. chicken, 2-4 tortillas, 1 cup Mexican rice or pasta fried in 1 Tbsp. of oil, 8 oz. sweetened carbonated or uncarbonated drink
Lunch, modified	2 cups chicken soup with 2 oz. of chicken, 2 corn tortillas, 1/3 cup Mexican rice or pasta fried in 1/2 tsp. oil; 8 oz. of diet soda or other noncaloric beverage or water

**Table 4. Additional Resources**

- The Ethnic and Regional Food Practices Series, developed by the American Diabetes Association and the American Dietetic Association, includes professional education booklets and patient education handouts on a variety of ethnic and regional food practices. These include Chinese-American, Mexican-American, Jewish, Navajo, Hmong-American, Filipino-American, Soul and Traditional Southern, Indian and Pakistani, and Northern Plains Indian food practices. To order, call the American Dietetic Association customer service department at 800-877-1600, ext. 5000.
- To find a registered dietitian in your area, visit the American Dietetic Association website ([www.eatright.org](http://www.eatright.org)) or call 800-366-1655.

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