

Revisiting Healthy Latino Foods

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The traditional Latino diet provided an abundance of healthful effects. Fruits, vegetables and processing techniques central to the diets of the Aztecs, Mayans and Incans improved, rather than reduced, healthfulness.

However, modern Latin-Americans in the United States face nutritional and related medical challenges their ancestors would never have seen coming.

Buying power

In the 1970s, USDA coined the term "Hispanic"—derived from *Hispania*, the ancient Roman term for the Iberian Peninsula—to refer to people descendant from Spain, Mexico, Central America, South America and the Caribbean. However, "Latino"—perhaps a shortening of *Latino Americano*—removes Spain from the classification.

Growing more rapidly than any other group in the United States, the Hispanic and Latino population in this country is the third largest in the world—roughly 44 million people. The largest segment of this group are of Mexican descent (approximately 60%), followed by Puerto Ricans and Cubans.

With increases in population come increases in spending, notes Barbara Apps, director of business development & marketing, AloeCorp, Austin, TX. "The Hispanic population is projected to account for 44% of the U.S. population growth between 1995 and 2025—that is 32 million Hispanics out of a total of 72 million people added to the nation's population," she says. In 2007, purchasing power of Hispanics was over \$8.6 billion.

Apps offers several examples of how increased Latino spending is evidenced by the growth of Hispanic brands and product offerings in the marketplace. Lifeway Foods launched *La Fruta* drinkable yogurt, while PepsiCo-owned SoBe launched *Fuerte*, a mango and passion fruit beverage with herbal extracts, labeled in Spanish, "SoBe *Tu Mismo*" (SoBe Yourself). Mott's launched *Clamato Energia*, an energy drink for the Hispanic consumer. Kool-Aid came out with *tamarindo* flavor, and Kern's came out with an *horchata* drink.

Changing nutrition

Certain offerings have, however, steered many Latinos away from the healthful dietary habits of their heritage. For example, traditional lime-soaked corn tortillas provide calcium and fiber in a low-fat and low-sugar medium. Modern refined-flour versions offer increased convenience in reduced breakage—and sometimes preferred flavor—at lower temperatures but sacrifice the nutritional benefits, such as higher fiber, of the traditional ingredients.

Increased convenience-foods offerings have also reduced the number of meals consumed at home—meals that are traditionally prepared from scratch, using wholesome vegetables, fruits and meats. Reduced intake of fiber, antioxidants, phytochemicals and iron, combined with reduced amounts of physical activity, has resulted in an alarming increase in health issues for the Latino community.

From 1991 to 2001, obesity rates among Latinos in the United States doubled to almost 24%. Hispanic children are more likely to become overweight than non-Hispanic white children of the same age. The Centers for Disease Control and Prevention has indicated that half of U.S. Latina women are overweight. Overweight and obesity can cause health issues, including asthma, sleep apnea, increased stress on bones

and joints, elevated blood pressure, and high blood insulin levels leading to type 2 diabetes.

In fact, Latinos are almost twice as likely to develop diabetes than non-Hispanic whites of the same age. A report from the Oldways-organized Latino Nutrition Coalition, Boston, cites data from the National Diabetes Information Clearinghouse, Bethesda, MD, indicating that diabetes is twice as common in Mexican American and Puerto Rican adults as in non-Hispanic whites (“Diabetes in Hispanic Americans,” latinonutrition.org/diabetes.html). The prevalence of diabetes in Cuban Americans is lower, but still higher than that of non-Hispanic whites. Risk factors for diabetes—family history of diabetes, gestational diabetes, impaired glucose tolerance, hyperinsulinemia and insulin resistance, obesity, and physical inactivity—are more common among Hispanics than non-Hispanic whites.

A healthy tradition

Traditional Latino foods are generally a far cry from the calorie-laden and nutritionally bereft foods often seen today. Grains are an important element of Latino diets. Mexican heritage brings a preference for corn and amaranth, while South Americans prefer wheat and quinoa, and Caribbean and coastal Latin Americans favor rice. These whole grains would undergo minimal processing, cracking or grinding vs. modern milling. Modern, refined grains like white flour and rice have lost the vitamins, minerals and fiber present in the germ and bran that are removed, although many refined grains are fortified to replace lost vitamins and minerals.

Beans, a common addition to salads, soups and stews, often served as the main source of protein—providing fiber, important nutrients and phytochemicals, and low levels of fat. Although some crossover exists, the various ethnic Latino groups generally prefer different types of beans. Black beans are often used by southern Mexicans, Central Americans, Venezuelans and Cubans. Northern Mexicans, Dominicans and Puerto Ricans enjoy pinto beans. Red kidney beans are a common sight in Cuban dishes, as well as in various cuisines throughout Central America, South America and the Caribbean. *Gandules* (pigeon peas) and *rosadas* (pink peas) are favorites of Puerto Ricans and Dominicans. Peruvians and Chileans prefer cranberry beans and lima beans. Brazilians and Venezuelans are partial to garbanzo beans (chickpeas).

The Incans, Mayans and Aztecs cultivated the tomato and the chile many centuries before the Europeans arrived. Early Spanish explorers found that Aztec nobles combined tomatoes, chiles and ground squash seeds, and served this condiment on turkey, venison, lobster and fish. The Spaniards were credited with calling it salsa. This seemingly universal Hispanic condiment varies with origin, as well. Made in an array of colors and textures, most contain chiles (fresh, roasted or dried), spices, tomatoes and/or tomatillos. *Salsa verde*, a favorite of Mexican Americans, is a green-colored, tart, often hot, sauce made with tomatillos. *Salsa rojo*, made with tomatoes, is also found on the Mexican dining table, waiting to impart a rich, sweet, smoky taste from smoked chiles, roasted tomatoes, onions and garlic. *Pebre*, a rustic sauce with tomatoes and *aji* chiles, is from Chile.

Mole, from the Nahuatl word *moli*, meaning “concoction,” describes a family of sauces that come from various regions of Mexico. Sometimes thick and dark, they can be also be thin and range in color from black to yellow. These smooth, aromatic sauces are labor-intensive concoctions that can contain over 30 ingredients, including 10 different varieties of chiles, almonds, peanuts, fried bread, plantains, sugar, chocolate, cinnamon, cloves—a host of healthy ingredients. Named for the mountain city of Puebla, Mexico, mole poblano is the most-famous member of the family, and is the key ingredient in what is often considered the national dish of Mexico—mole poblano *de guajalote* (Puebla-style turkey mole).

Latinos have also traditionally made use of a wide variety of fruits (like plantain, pineapple, passion fruit, guava, strawberry, papaya, jackfruit and *guarana*), root vegetables (like cassava) and chiles (like *pasilla*, cascabel, poblano and habenero, in addition to the more-common jalapeño). In traditional diets, pumpkins, squash, zucchini and similar plants were common food sources—and not just the fruits of the plant. Stems were used for soup, called *sopa de guías*; the flowers go into soups, stews and quesadillas; and the fruits were boiled. Sun-dried pumpkin seeds were toasted and salted and provided another source of high-quality protein.

No school like the old school

Groups such as the Latino Nutrition Coalition are working to reintroduce elements of the traditional Latino diet. Similar in nature to the Mediterranean diet, traditional Latino diets were rich in fruits, vegetables, tubers, beans and nuts. Latino traditions commonly utilize oils from squash, peanuts and avocados, and seeds such as pumpkin and sesame. The Latin American Diet Pyramid (oldwayspt.org/latin_pyramid.html) provides a guideline for healthy eating habits geared to the Latino community, emphasizing the components of the more-healthy traditional diet.

Amaranth, for example, is a grain that was a staple of the Aztec culture. The small kernels yield a bright, peppery flavor and resemble brown caviar when cooked. Amaranth may also be “popped” like corn. With no gluten, it must be mixed with wheat—or gluten added—to make raised breads. Amaranth is a healthy addition, with a high level of protein (16%), including lysine—an essential amino acid absent, or present in miniscule amounts, in many common grains.

Cassava (*Manihot esculenta*), also referred to as yuca and manioc, is another traditional Latino food, often playing the same role as potatoes in North American fare. The long, tapered roots are peeled and submerged in water to prevent darkening prior to cooking. Low in protein (about 1%) and high in starch (25% to 30%), cassava does provide calcium (50 mg per 100 grams) and vitamin C (25 mg per 100 grams). Cassava can also contribute high levels of cyanide if the roots are not handled properly. Cyanogenic glucosides in the plant generate hydrogen cyanide when the plant’s tissues are damaged. By damaging the tissues, processors can allow the hazardous compounds to be liberated prior to processing. Additionally, farmers can cultivate “sweet” or “low-cyanide” versions of the plant. Yuca is used in countless applications, served boiled or made into dough, even fermented into alcoholic beverages. Fried yuca slices have even been served up as a high-fiber, reduced-fat (approximately 40% less) alternative to potato chips.

Sharing the “at every meal” base of the Latin American Diet Pyramid are fruits like plantains. Although related to the banana, these large fruits are not edible without cooking. Green plantains are starchy with a mealy texture, but offer another alternative to potato chips, this time providing vitamins A and C and potassium. As the fruit ripens, the color becomes dark—almost black—and starch is converted to sugar, yielding a sweet flavor when sautéed in butter or oil. They can be puréed or mashed and served as a side dish sprinkled with salt, garlic and/or lime juice, or they can be added to items such as tamales or chiles rellenos, or served as a dessert topped with sugar, cinnamon and butter.

Other fruits traditionally enjoyed by Latinos include pineapple, passion fruit, guava, strawberry, papaya, jackfruit and *guarana*. These fruits are used to create jams and frozen desserts, either fresh or in the form of pastes called *ates* or *cajetas*. Citrus fruits, such as lime, lemon and orange, are also used as flavorings in marinades and salsas.

Bueno beverages

The popularity of fruits opens the way for increased beverage applications targeted to the Latino consumer. A 2006 survey by Information Resources, Inc., Chicago, showed refrigerated juices and beverages, bottled waters, and beer and ale products are growing significantly faster among Hispanics than the general population. Increased purchase rates were also observed for carbonated soft drinks, aseptic juices and sports drinks. In another survey, ACNielsen, New York, found that berries, lemon, lime, orange and berry-lime combinations were preferred among Hispanics. Traditional flavors such as guava, pineapple, hibiscus and tamarind were also tapped as popular choices.

In addition to exotic taste, beverages made with these fruits must have the appropriate mouthfeel. “A genuine tamarind beverage has a texture that contains pulp and particulates,” says Apps. “While often considered unacceptable by many informal sensory participants, these characteristics are very acceptable for the Hispanic target audience. The texture assures consumers that the product is natural and made with authentic ingredients, not just colored or flavored water.” Traditionally the pulp is mixed with water or infused to create sweetened beverages such as *fresco de tamarindo*. Tamarind pulp contains many healthy elements, including calcium, iron, phosphorous, thiamin, riboflavin, niacin and dietary fiber. Folk medicine considers tamarind to be a digestive aid, among other uses.

For another possible nutritive drink concept, product designers might look at aloe. Long before the advent of modern medicines or nutritionally enhanced foods, cultures throughout the world used aloe for medicinal purposes—externally as an ointment, and internally for digestive disorders, fever, asthma and even

osteoarthritis. A study from 2006 shows phytosterols in dried aloe vera gel can reduce blood sugar by up to 55% (*Biological & Pharmaceutical Bulletin*, 29(7):1,418-1,422)—a huge benefit to those suffering from non-insulin-dependent diabetes mellitus.

Apps suggests that advances in dehydration technology are yielding dry powders with the natural benefits of the raw product intact. “There is exciting potential for aloe-based drink mixes that would be appealing to emerging ethnic markets,” she says.

You say tomato...

Although they're from the same Solanaceae family as tomatoes (*Solanum lycopersicum*), tomatillos (*Physalis philadelphica*), which resemble small, green tomatoes with a papery husk, are a distinct genus. Green when ripe, their color can advance to yellow or purple. Dating back to 800 B.C., they were first grown for harvest by the Aztecs. Today, tomatillos are becoming more common in America as the Hispanic population grows. The main ingredient in *salsa verde*, these small fruit (like tomatoes, treated like a vegetable) pack a hearty serving of healthy elements, including potassium, vitamins A, C and K, and folic acid.

Aquacate—*abacate* in Brazil, but *avocado* to you and me—has found tremendous acceptance in mainstream America in the form of guacamole. *Salsa guasacaca*, creamy avocado sauce spiked with chiles, is a Venezuelan favorite. And in Columbia, avocado is diced for addition to soup, stew and even a frozen cocktail called *guacamaya*. Rich in beneficial compounds, 1 oz. of avocado provides nearly 20 vitamins, minerals and phytonutrients, including 4% of the recommended Daily Value (DV) for vitamin E, 4% vitamin C, 8% folate, 4% fiber, 2% iron and 4% potassium, with 81 µg of lutein and 19 µg of beta carotene.

Heat wave

Not all Latino foods are spicy. Chiles are, however, no stranger to the cuisines. Tastes vary almost as much as the colors of these little items. Anaheim chiles are commonly available in the United States—mild, green and often used for stuffing or adding to salsa. *Pasilla* chiles exhibit a deep-raisin-brown color that matches the sweet, raisinlike note they often add to moles and other traditional sauces. Cascabels can be green or deep-red in color, with a lightly woody or nutty flavor. Poblanos resemble small, green, bell peppers and provide an earthy note often incorporated into soups and sauces. Anchos (dried poblanos) range in color from dark-red to virtually black and have a mildly fruity flavor with notes of raisin, coffee or tobacco. Fiery habeneros are usually yellow-orange, lantern-shaped and fruity or floral in flavor.

Heat imparted by chiles is described in Scoville Heat Units (SHU). Using a method devised in 1912, taste panelists would determine when the capsaicin from a standard weight of a chile was no longer detectable to the palate. Today, HPLC determines the amount of capsaicin in parts per million, which is then converted to SHU. At the mild end of the spectrum are Anaheim chiles, weighing in at 100 to 500 SHU, and poblanos ranging from 500 to 1,000 SHU. Habeneros, the hottest chiles grown commercially, deliver 100,000 to 300,000 SHU. Pure capsaicin, by the way, is 16,000,000 SHU.

More than just heat, chiles are a healthy addition to any formulation. Low in calories and high in fiber, they are rich in vitamins A, C and E, beta carotene, folic acid and potassium. Chiles also provide various amounts and types of healthful phytochemicals, depending on color. Red chiles provide lycopene, while yellow chiles offer lutein. Orange chiles contain beta carotene, and green chiles provide varying levels of sulforaphanes, isothiocyanates and indoles. Chiles have demonstrated an array of health benefits, including reducing inflammation and congestion, boosting immunity, preventing stomach ulcers and lowering oxidation of blood cholesterol (the first step in atherosclerosis). Of special interest to Latino consumers, however, is how chiles help reduce the risk of hyperinsulinemia (a condition associated with type 2 diabetes) by lowering the amount of insulin needed to reduce blood sugar after eating—an effect that increases with body mass index (*American Journal of Clinical Nutrition*, 2006; 84:63-69).

Beyond the rainbow of healthful elements in chiles lies a treasure of benefits to be found in the traditional Latino diet. It would seem we need only open our eyes and say “sí.”

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Latino Grocery Goldmine

Latino consumers shop for groceries far more often than average American consumers, according to the Latino Nutrition Coalition, Boston. As many as five trips per week find Latino shoppers spending over 20% more per trip, over \$100, as compared to less than \$90 spent by American consumers at large. These dollars are spent at local bodegas, regional markets and supermarket chains that target Hispanic shoppers.