

Diet Therapy



Food Patterns of the Southwest

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IN THIS day of rapid transportation, television and radio communication, widely separated groups of people know and use foods and dishes previously considered typical of certain regional groups. Thus, there cease to be "typical" diets except for those in more isolated areas with limited shopping facilities.

The earliest settlements in the Southwest were made by colonists from Spain and Mexico. They found the nomadic tribes of Indians getting their food supply from wild plants and animals. In addition the more settled groups cultivated fields in which they grew corn, beans, squash, pumpkins, and peppers. As the settlers and the Indians mingled each acquired some of the others' eating habits. The development of ranching, agriculture, and the natural resources (such as potash, gas, oil, and uranium) has brought into the state people with different nationality and regional food patterns. Contacts between these different groups introduced new foods but, as is true in all cultural groups, certain foods and recipes typical in the diet of parents and grandparents continue to be used, some daily and some on holidays and special occasions.

Due to limited employment opportunities in the state for low income groups many Indians and Spanish Americans move into other areas for seasonal employment. When these people come to the physician for medical treatment which includes modification of the diet it is important to interpret in terms of their food patterns. The purpose of this paper is to discuss

the typical foods and their preparation, the adequacy of the diet and to show how it may be modified to meet the principles of certain therapeutic diets, yet retain as many as possible of the foods desired by this group of people.

TYPICAL FOODS AND THEIR PREPARATION

Foods which have been used for generations and, therefore, may be considered typical of the Southwest are tortillas, tamales, pinto beans, chile, and certain forms of corn.

Breads: The *tortilla* is probably the bread of choice. It was formerly made from mature corn which was treated with wood ashes (later with lime) to remove the outer husk and then worked into a dough. This dough was shaped into a very thin, round cake which was baked on hot stones or a hot stove lid. Today, most tortillas are made from wheat flour with a small amount of baking powder added. The corn tortilla is still used on holidays and may be purchased in many stores in the Southwest. In the home the size and thickness of the tortilla varies just as the size of rolls or biscuits do. Stores sell a very thin tortilla which may be either 6 or 9 inches in diameter. The tortilla may be served as a bread, to scoop up the beans and juice or it may be used in various dishes, as *enchilada*, *taco*, etc. For the *enchilada* the tortilla is heated in a small amount of fat. Then it may be filled with grated cheese, onion, and shredded lettuce and rolled. Or several tortillas may be stacked, like pancakes, with the cheese, onion and lettuce between them. In either method a sauce made of chile is served over them. For the *taco* the tortilla is heated in fat, folded in the center and filled with shredded lettuce and ground meat sea-

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soned with onion, garlic, and oregano and served with a chile sauce.

To prepare *tamales* lard is added to the lime treated corn or *masa* which is spread on corn husks which have been washed and soaked in warm water. Ground meat seasoned with garlic, chile, and tomatoes or meat stock is placed in the center. The sides of the corn-husks are folded over and tied. These are steamed or cooked in a pressure cooker. A chile sauce may be served over these.

Another bread stuff is the *sopaiquilla* which is similar to a biscuit dough but rolled thin and fried in hot, deep fat so it puffs up.

Yeast breads are replacing the tortilla to a significant extent.

Cereals: Oatmeal is the most commonly used breakfast cereal but is rapidly being replaced by the ready-to-eat cereals. *Atole*, a cornmeal gruel served with hot milk, is often used for ill people and women in the postpartum period. Rice, usually cooked in milk, is served as a dessert. Spaghetti, macaroni, etc., are used frequently, especially when potatoes are expensive.

Dried beans, either pinto or calico beans, may be eaten several times a day by some Spanish-American families but only one to three times a week by others. Little or no fat may be used in the original cooking but they may be reheated by pan-frying, usually in lard. They may be reheated a second time by frying, "re-fried beans." The beans cooked without fat, when strained or puréed, have proved to be very satisfactory for feeding three-to-four-month-old infants when eggs and meat are not available. It has been a custom of long standing among the Spanish-Americans to feed the juice from the cooked beans to babies but the juice plus the pulp is more nourishing.

Meat, Fish, Poultry and Game: These are well-liked foods which are used frequently when the income permits. The Indians who own flocks of sheep and goats eat meat several times a day when they butcher an animal. How often they butcher depends upon the size of their flock. The picture would be the same during the hunting season. When the Indians and Spanish-Americans must buy these foods they are used only two to three times a week.

Dairy Foods: Eggs may be eaten daily if the

income permits but the average intake is two to three times a week. They are usually served fried for breakfast.

Milk was a basic food in the diet when this was a more rural area and people had their own cows or goats. When purchased it seems like an expensive food so little is used except for the baby. Evaporated milk is used for infant feeding, on cereal and in cooking. It may be used for drinking but fresh milk is generally preferred. Very little milk is used in cooking. Cheese made from goat's milk is a popular ingredient of many recipes. However, it is often difficult to get people to use any quantity of the cheddar or American cheese commonly available in the stores.

Vegetables and Fruits: Chile is a common ingredient of many southwestern recipes. The chile, a hot pepper, may be used in either the green or ripened stage. The most commonly used form is the ripened, which is dried and then ground into a powder as used. The canned or frozen green or red chile is also used. The chile sauce served on enchiladas, tacos, etc., may be made with cooked red chile or the chile powder. Tomatoes may be added and it may or may not be thickened with flour. Other seasoning, such as onion, garlic, or oregano, may be used. Green or red chile or the powder is added to many foods such as beans, meat, and potatoes.

Corn is a popular vegetable which may be served as *posole*, which is similar to hominy, or *chicos* which is green corn steamed and dried on the cob. Fresh and canned corn is popular.

Tomatoes and lettuce are the most commonly used vegetables, with string beans, peas, celery, squash, and beets ranging next in popularity. Carrots are being used more frequently. Potatoes were formerly a basic food, used one to three meals, daily. When the price is high and the quality poor their use decreases to every other day or sometimes only once a week. They are usually fried.

Wild greens, such as lamb's quarter (*quelites*), purslane (*verdulagas*) were formerly used both fresh and canned or dried for winter use. They are still used by the older people in the more isolated areas but the younger ones do not know or use them. Most vegetables are cooked too long.

The frequency with which fruits are used depends upon their availability and price, therefore, their use would range from once daily to once a week. Oranges, apples, bananas, and canned peaches are the most popular. If fruit is grown locally apples, peaches, apricots, plums, and pears may be canned at home.

Fats: Butter, even in small quantities, is preferred to oleomargarine. However, through education the number using the less expensive oleomargarine is increasing. Mutton fat is used by the Indians and lard by the Spanish-Americans but both groups are using more of the hydrogenated fats.

Sweets: Large quantities of sugar, soft drinks, and other sweets are used by both groups. Two or three teaspoons of sugar may be used on a serving of cereal. Typical desserts from the "old" days are not as high in sugar. For example, the *biscochito* is similar to a sugar cookie but not as sweet. For the *empanada* a dough similar to the *sopaipilla* is used. This is filled with a nut and fruit mixture or a nut and meat mixture similar to mince-meat, then fried in deep fat. Sweet rolls purchased at the store are popular, especially for breakfast.

Seasonings: The ground red chile, onions, and garlic are the most commonly used seasonings. Oregano, coriander seeds or leaves, dried mint, parsley, lemon juice, nutmeg, cinnamon, and saffron are also used by the Spanish-American group. Formerly, many wild herbs were dried for seasoning but this practice is decreasing. All groups in the Southwest use large quantities of salt and many use black pepper quite freely.

A high percentage of the people drink large amounts of coffee and in many families the young children are given coffee.

PROBLEMS OF DIETARY ADEQUACY

The dietary deficiencies usually encountered in the Southwest are in protein, calcium, riboflavin, and ascorbic acid. Limited income may be the major factor in some cases but, primarily, the deficiencies are attributable to the failure to appreciate the importance of an adequate diet and a lack of knowledge of the relative value of

various foods and what constitutes an adequate diet.

The low intake of dairy foods accounts for the deficiency of calcium and riboflavin and affects the protein intake. The dry skim milk, available at low cost, could be a most valuable addition to the diet. However, it requires an intensive educational program to get the families to use it. Meat and eggs are well liked, so cost is the factor that prevents them from getting sufficient protein from these sources. Dried beans are cooked daily by some families but the cost of fuel and the feeling that beans are not a "good" food may decrease their use to once or twice a week. Education is needed on the value of protein from beans with emphasis on the need to supplement them in the same meal with animal protein, such as a glass of milk.

Frequently, no differentiation is made by the homemaker between the food value of citrus and other fruits. So there is need for education in this field if an adequate intake of ascorbic acid is to be achieved. Fresh, frozen, or canned chile is a good source of vitamin C. It is used liberally by the adults but the children, generally, do not acquire a taste for it until they are ten or eleven years old. If raw cabbage were used in salad instead of lettuce, this would increase the intake of vitamin C. Although potatoes are not rich in this vitamin they supply an appreciable amount if properly cooked and used often. The substitution of rice, spaghetti, etc., for potatoes represents not only a loss of ascorbic acid in the diet but also of iron and thiamine.

Iron deficiency is sometimes observed among women who have had frequent pregnancies and in older infants who receive only milk. Attention needs to be paid to the ascorbic acid and iron contents of the diets for these groups.

A suitable pattern for an adequate diet which would include the foods typical of the area is as listed on the facing page.

Such a pattern is helpful when planning therapeutic diets according to the physician's prescription and adapted to the patient's food preferences. The latter is essential in obtaining the patient's cooperation in eating the diet prescribed.



<i>Foods</i>	<i>Daily Servings</i>
Milk, fresh, pasteurized, evaporated, or dry skim	2 cups for adults 3-4 cups for children 4 cups for pregnant women
Meat, fish, or poultry or eggs, cheese or dried beans or peas	2 to 3 servings
Ascorbic acid-rich foods:	1 serving, 2
Rich sources: oranges, grapefruit, or their juice	servings for teenagers or pregnant women
Good sources: tomatoes, raw cabbage, or green chile	women
Vegetables	2-3 servings
Green or yellow vegetables several times a week, daily if dry skim milk is used	
Potatoes—frequently	
Other fruits	1 to 2 servings
Enriched or whole grain bread or cereal or tortillas made with milk and enriched flour	At each meal
Butter or fortified margarine	2 tablespoons
Sweets	Limit as much as possible

SUGGESTIONS FOR PLANNING THERAPEUTIC DIETS

Calculated Diets

Low calorie, diabetic, etc., diets. The exchange lists are readily used in the calculation of these diets.

(1) Nonfat milk solids need to be emphasized when fresh milk is too expensive.

(2) *Vegetable Exchanges:* Chile—fresh, canned, or frozen—is of comparable nutritive value with green pepper and should be included with group A vegetables. Chile powder used for seasoning has negligible food value.

Continual emphasis must be placed on the use of green vegetables for their carotene content, for iron, and for ascorbic acid.

(3) *Fruit Exchanges:* When income is restricted, the amount of fruit which can be used may vary from once a day to once a week. Obviously, the ascorbic acid level of the diet may be jeopardized. It may not be realistic to include two servings of fruit daily. A careful evaluation will then need to be made of the wisest choices of vegetables as well as fruits. For example, tomatoes, greens, and cabbage

are reliable sources of vitamin C and may replace in part the usual stated allowance of fruit. Fresh fruits, in season, will provide more adequate levels of ascorbic acid, while many canned fruits such as pears, peaches, apples, cannot be relied upon for the vitamin. In fact, in terms of money spent these canned foods may provide very little nutritive value in comparison with other foods. Sometimes the patient can be shown how to have sufficient money for fruits by restricting the amounts of sweets, fats, and coffee.

(4) *Breads:* The relatively high intake of the filling breadstuffs and beans by people with restricted incomes presents a special problem in the calculation of low calorie and diabetic diets. When the amount of fruit available is restricted, the patient should be instructed that he may occasionally substitute 1 bread exchange for 1½ fruit exchanges. However, he must be cautioned not to make such substitution a routine practice.

One store-size tortilla (6 inches in diameter) may be used for one bread exchange. One-half cup posole is also equivalent to one bread exchange.

One-half cup cooked beans provides as much protein as 1 meat exchange and as much carbohydrate as 1½ bread exchanges.

(5) *Meat Exchanges:* When the income is limited, an increasing proportion of protein will be provided by beans. When ½ cup beans is substituted for one meat exchange, it is necessary to omit 1½ bread exchanges and to add 1 fat exchange. In other words, 1 oz meat plus 1½ bread exchanges are equivalent to ½ cup beans plus 1 fat exchange. When beans are used as a daily item in the diet, it is, no doubt, easier to include them as a separate item rather than confusing the patient with the modification of bread, meat, and fat exchanges.

When the amount of meat is reduced, it is essential that some of the milk be taken at each meal to provide more adequate supplementation of the incomplete protein.

(6) *Fat Exchanges:* Fortified margarine should be emphasized when income is restricted.

Preparation. Since fried foods are especially well liked, the patient must learn to eat foods prepared in other ways. For example, meats

may be broiled, roasted, or stewed; potatoes may be baked, boiled, or mashed (using milk but not fat); beans may be boiled or baked using some fat from the fat exchanges calculated in the diet.

Artificial sweeteners may be indicated for cereals, coffee, etc.

Low-Sodium Diets

(1) Since most people in this area are heavy salt eaters the adjustment to this diet is quite difficult.

(2) Protein. The frequent use of dried beans is an advantage as they are much lower in sodium than the other protein foods. Emphasis must be placed on not using canned or prepared meats as bologna, wieners, corned beef, etc.

(3) Breads. In breads made at home (tortillas, biscuits, yeast bread, etc.) the salt can be omitted without affecting the texture. In quick bread (biscuits, tortillas, pancakes, etc.) low-sodium baking powder should be used. This may be purchased in many stores.

(4) Vegetables. If the income is limited the patient may not be able to afford fresh or frozen vegetables. Those canned without salt are more expensive than the regular canned ones. Celery and beets which are frequently used are high in sodium.

Soft or Bland Diets

To persons accustomed to foods highly seasoned with chile the bland or soft diet is very tasteless and difficult to accept.

(1) Since many foods are fried it will be necessary to suggest other methods of cooking (as mentioned under Low Calorie Diets).

(2) Protein foods present a problem for the patient with a limited income. Dried beans cooked without fat and puréed are tolerated by most patients.

(3) Whole wheat breads are not generally used. Oatmeal is a popular cereal so it will be necessary to teach the patients to strain it.

(4) Fruits and vegetables probably will not be available in adequate amount in the low income diets.

Following are examples of menus based upon the pattern for an adequate diet with

the variations that might be made of a low caloric diet, low sodium diet with 800 mg of sodium and a soft or bland diet.

TYPICAL SAMPLE MENUS

LOW CALORIE (1,200 CALORIES)

Breakfast

- 1/2 cup orange juice
- 1 egg
- 1 slice toast or 1 tortilla or 1/2 cup cooked cereal
- Coffee
- 1 cup skimmed milk

Lunch

- 1 cheese enchilada (1 oz cheese, shredded lettuce, and onion, 1 tortilla (store size) heated in 1 teaspoon fat, chile sauce (no sugar)
- 1/2 cup green beans; no fat
- 1/2 cup unsweetened applesauce
- 1 cup skimmed milk

Dinner

- Chile con carne (1/2 cup lean ground beef, 1/2 cup pinto beans, seasoned with chile powder)
- 1 tortilla (store size)
- 1/2 cup carrots with 1 teaspoon margarine
- Lettuce salad (no dressing)
- 1/2 cup canned peach (no syrup)
- Coffee (no sugar)

SOFT OR BLAND DIET

Breakfast

- 1/2 cup orange juice
- 1/2 cup oatmeal, strained
- 1 cup milk, sugar
- 1 egg
- 1 slice toast or 1 tortilla
- 2 teaspoons margarine
- Coffee, cream, sugar

Lunch

- Toasted cheese sandwich
- 1/2 cup green beans
- 1 teaspoon margarine
- 1/2 cup applesauce
- 1 cup milk

Dinner

- 1/2 cup ground beef
- 1/2 cup strained pinto beans
- 1 tortilla with 1 teaspoon margarine
- 1 cup carrots, cooked
- 1 teaspoon margarine
- 1/2 cup vanilla ice cream
- Coffee, cream, sugar

ADEQUATE DIET

Breakfast

- 1/2 cup orange juice
- 1/2 cup oatmeal with 1 cup milk, sugar
- 1 soft cooked egg



1 slice whole wheat toast or 1 tortilla
 2 teaspoons margarine or butter
 Coffee with cream and sugar

Lunch

2 cheese enchiladas (2 tortillas, lettuce, onion, 1/4 cup shredded cheese, 1 teaspoon margarine, chile sauce)
 1/2 cup green beans with 1 teaspoon margarine
 1 cup applesauce
 1 cup milk

Dinner

Chili con carne (1/2 cup ground beef, 1 cup pinto beans, seasoned with chile powder)
 1 cup carrots with 1 teaspoon margarine
 1 tortilla with 1 teaspoon margarine
 1/2 cup ice cream
 Coffee, cream, sugar

LOW SODIUM (800 MG SODIUM), 1,200 CALORIES**Breakfast**

1/2 cup orange juice
 1/2 cup oatmeal cooked without salt; no sugar
 1 cup milk
 1 slice toast, without salt
 Coffee; no sugar

Lunch

1 egg, no salt
 Lettuce and tomato salad (no dressing)
 1/2 cup green beans
 1 tortilla, homemade without salt
 1 teaspoon oil
 1/2 cup unsweetened applesauce
 1 cup milk

Dinner

Salt-free chili con carne (1/2 cup lean ground beef, 1/2 cup pinto beans, seasoned with chile powder)
 1 tortilla, without salt
 1 teaspoon oil
 1/2 cup carrots
 1/2 cup canned peach (no syrup)
 Coffee (no sugar)

SUMMARY

The foods that may be considered typical of the Southwest are pinto beans, tortillas made from flour, or lime-treated corn, and chile—either fresh, frozen, canned or in the powdered form.

These foods need to be included, when practical, in planning therapeutic diets. The usual dietary deficiencies that must be considered are protein, calcium, riboflavin, and ascorbic acid. Frying is a common method of food preparation so that patients on certain types of diets will need to be instructed in other methods of cooking.

The problem of an adequate diet for normal or therapeutic situations is partly economic but largely a matter of education. Emphasis must be placed on teaching the correct value of the foods now used, the choice of correct food to supplement these and how to make substitutions in therapeutic diets.

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