Introduction
HEALTHY EATING AND PHYSICAL ACTIVITY

Healthy eating and physical activity are essential at all stages of life. They are especially important for the growth and development of infants, children, and adolescents. Optimal nutrition and regular physical activity can prevent health problems such as iron-deficiency anemia, obesity, eating disorders, undernutrition, and dental caries. Over the long term, they can help lower the risk of developing chronic disease (e.g., heart disease, certain cancers, diabetes mellitus, stroke, osteoporosis) or risk factors for disease (e.g., obesity, high blood pressure, high blood cholesterol levels).

Unfortunately, there are many barriers to healthy eating. High-fat, high-sugar, and low-nutrient foods are plentiful, inexpensive, and widely available. Viewed as quick and cheap, such foods are attractive to families facing time and money pressures. And with so many media messages encouraging unhealthy eating, children and adolescents may have more negative than positive influences on their eating behavior. Too often, “healthy eating” carries images of expensive and tasteless food that is time-consuming to prepare.

Negative images also create barriers to physical activity. Regular physical activity is sometimes viewed as time-consuming, painful, boring, or expensive. Some people feel they can’t keep up with regular physical activity, so they don’t try any activity at all. People who are sedentary often feel that physical activity goals are beyond their reach, and others feel intimidated about joining in activities with others who are more athletic. Furthermore, some people have difficulty finding safe, inexpensive places where they can enjoy physical activity.

Improving the well-being of infants, children, and adolescents requires that health professionals, families, and communities work together to create opportunities for healthy eating and physical activity. Multifaceted, communitywide efforts are needed to combat negative images and to demonstrate that healthy eating can be quick and delicious and that physical activity can be fun. Using creative settings—such as community centers, athletic facilities, libraries, restaurants, and supermarkets—to deliver innovative nutrition education programs should be explored. Environments that make it easier to be physically active—such as parks with play areas, walking and biking paths, and school and other community recreational facilities that are open during non-school hours (e.g., after school, on weekends, during the summer)—should be provided and maintained.

Healthy Eating

The food choices people make depend not only on their nutrition needs but also on their culture, access to food, environment, and enjoyment of certain foods. Eating is one of life’s greatest pleasures, and a variety of factors play a role in how people select foods and plan meals.
To help children, adolescents, and families practice healthy eating behaviors and become more knowledgeable about the types and amounts of foods needed for optimal nutrition, the federal government created the following tools: the Dietary Guidelines for Americans, the Food Guide Pyramid, and the Nutrition Facts food label.\textsuperscript{1–3} The Dietary Guidelines provide general nutrition principles, the Food Guide Pyramid shows how to select different types of foods for optimal nutrition, and the Nutrition Facts label identifies the nutrients in different food products. These tools can be used for children ages 2 and older and for adolescents.

**Dietary Guidelines for Americans**

The Dietary Guidelines are designed to help people choose foods that meet nutrition requirements, promote health, and support active lifestyles.

**DIETARY GUIDELINES FOR AMERICANS**

**Aim for fitness**
- Aim for a healthy weight.
- Be physically active each day.

**Build a healthy base**
- Let the Pyramid guide your food choices.
- Choose a variety of grains daily, especially whole grains.
- Choose a variety of fruits and vegetables daily.
- Keep food safe to eat.

**Choose sensibly**
- Choose a diet that is low in saturated fat and cholesterol and moderate in total fat.
- Choose beverages and foods to moderate your intake of sugars.
- Choose and prepare foods with less salt.

**Food Guide Pyramid**

The Food Guide Pyramid translates the Dietary Guidelines into food groups, listing the number of recommended daily servings from each group.

**Figure 1. Food Guide Pyramid**

\[\text{Diagram of Food Guide Pyramid with servings indicated for each group.}\]

*Note: A range of servings is given for each food group. The smaller number indicates the recommended servings for people who consume about 1,600 calories a day; the larger number indicates servings for people who consume about 2,800 calories a day.*

*Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services.\textsuperscript{1}*

Many children and adolescents from diverse cultures learn about nutrition in school by studying the Food Guide Pyramid. It is important to encourage children, adolescents, and families to maintain the healthy eating behaviors inherent in their cultures. Health professionals can make the Food Guide Pyramid relevant to different cultural groups by helping people place their traditional foods in the appropriate place in the pyramid. If traditional foods are at the top of the pyramid (and thus should be eaten sparingly), the frequency or amount of consumption may need to be changed, but few foods need to be eliminated completely.\textsuperscript{4}
The Food Guide Pyramid for Young Children was developed to help improve the diets of children ages 2 to 6. Although this adaptation of the original Food Guide Pyramid was needed because young children have unique eating behaviors and needs, the basic nutritional advice was not changed. As with the original pyramid, most of the daily servings of food should be selected from the food groups closest to the base of the pyramid. However, the Food Guide Pyramid for Young Children uses shorter food-group names and single numbers rather than ranges to indicate the recommended daily servings. The pyramid was designed to be more understandable and appealing to young children. In addition, illustrations of young children playing around the pyramid send the message that physical activity is important.

Source: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion.2

### SERVING SIZES FOR CHILDREN AND ADOLESCENTS

**Bread, Cereal, Rice, and Pasta Group**
- 1 slice of bread
- 1 oz of ready-to-eat cereal
- 1/2 cup of cooked cereal
- 1/2 cup of rice or pasta

**Vegetable Group**
- 1 cup of raw, leafy vegetables
- 1/2 cup of raw or cooked vegetables
- 3/4 cup of vegetable juice

**Fruit Group**
- 1 medium apple, banana, or orange
- 1/2 cup of chopped, cooked, or canned fruit
- 3/4 cup of fruit juice
- 1/4 cup of dried fruit

**Milk, Yogurt, and Cheese Group**
- 1 cup of milk or yogurt
- 1 1/2 oz of natural cheese
- 2 oz of processed cheese

**Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts Group**
- 2 to 3 oz of cooked lean meat, poultry, or fish
- 1/2 cup of cooked dry beans or 1 egg counts as 1 oz of lean meat. Two tablespoons of peanut butter or 1/3 cup of nuts counts as 1 oz of meat.

Offer children 2 to 3 years old about 2/3 of a serving, except for milk. Children 4 years and older and adolescents can eat these serving sizes. Children 2 to 6 years old need a total of 2 servings from the milk group each day.

Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services1, and U.S. Department of Agriculture, Center for Nutrition Policy and Promotion.2
Nutrition Facts Label

The Nutrition Facts label helps people select foods that meet the Dietary Guidelines for Americans. The label provides a basis for comparing nutrients so that people can make informed choices when purchasing food products. The nutrition information on the label is based on a single serving, which reflects the amount a person typically eats at one time. Key nutrients, including total fat, cholesterol, sodium, total carbohydrate, and protein, are listed for each serving. The information is given as a percentage of Daily Values (DVs). This number shows how a serving of a specific food fits into a 2,000- or 2,500-calorie-a-day diet. The label also lists ingredients in descending order.3

Basic Principles of a Healthy Diet

Variety

Because no single food supplies all nutrients, a healthy diet needs to include a variety of foods from the Food Guide Pyramid’s five major food groups. To meet nutrition recommendations, meals need to include grain products (i.e., bread, cereal, rice, pasta) accompanied by vegetables, fruits, and low-fat selections from the remaining groups.5

Balance

A balanced diet incorporates appropriate amounts of foods from the five major food groups every day. Age, sex, and level of physical activity make a difference in the number of servings needed to maintain a well-balanced diet. People can maintain or improve their weight by balancing what they eat with regular physical activity.5

Moderation

Eating healthy foods helps promote nutritional status while controlling the intake of calories, as well as fat, saturated fat, cholesterol, salt, and sugar. Eating healthy foods in moderation allows people to enjoy the variety of foods available.5

Macaroni and Cheese

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
<th>Serving Size 1 cup (228g)</th>
<th>Servings Per Container 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount Per Serving</td>
<td>Calories 250</td>
<td>Calories from Fat 110</td>
</tr>
<tr>
<td>% Daily Value*</td>
<td>Total Fat 12g</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Saturated Fat 3g</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Cholesterol 30mg</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Sodium 470mg</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Total Carbohydrate 31g</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Dietary Fiber 0g</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Sugars 5g</td>
<td></td>
</tr>
<tr>
<td>Protein 5g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vitamin A</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Vitamin C</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

<table>
<thead>
<tr>
<th>Calories:</th>
<th>2,000</th>
<th>2,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat</td>
<td>Less than 65g</td>
<td>80g</td>
</tr>
<tr>
<td>Sat Fat</td>
<td>Less than 20g</td>
<td>25g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Less than 300mg</td>
<td>300mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>2,400mg</td>
<td>2,400mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>300g</td>
<td>375g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>25g</td>
<td>30g</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Health and Human Services, Food and Drug Administration.3
Limiting Fat Intake

The Dietary Guidelines recommend that people limit fat intake to 30 percent or less of their total calories. Total grams of fat are determined in proportion to the recommended number of calories a person needs.

The following suggestions may help people limit their consumption of fat:

- Limit the consumption of high-fat sauces, salad dressings, and spreads (e.g., butter, margarine).
- Trim visible fat from meat.
- Limit the consumption of fried foods.
- Choose low-fat foods when eating at fast-food and other restaurants: Order lower-fat milk instead of a shake, a single hamburger patty instead of two, or a salad instead of French fries.
- Have fruits and vegetables, rather than chips, cookies, and pastries, available for snacks.
- Use low-fat cooking methods such as baking, boiling, and broiling, and use cooking spray instead of oil, butter, shortening, or lard.

Limiting Sugar Intake

The following suggestions may help people limit their consumption of sugar:

- Eat foods that are naturally sweet, such as fresh fruits.
- Keep the sugar bowl off the table.
- Limit the consumption of heavily sweetened foods such as cookies and candy.
- Drink water, rather than fruit drinks or soft drinks, to quench thirst.
- Use less sugar and other sweeteners when cooking.
- Take along nutritious low-sugar snacks on outings.
- Develop a neighborhood policy on acceptable snacks for children and adolescents.

Nutrition Counseling

Health professionals can use the following information to help families promote healthy attitudes toward food and healthy eating behaviors.

Infancy

- Infants have special dietary needs because of their rapid growth and development.
- Breastmilk is the ideal food for infants. Even if the infant is breastfed for only a few weeks or months, the benefits are immeasurable.
- Until the infant is 12 months of age, breastmilk or iron-fortified formula is recommended. Low-iron milk (e.g., cow’s, goat’s, soy) should not be used, even in infant cereal. Reduced-fat (2 percent), low-fat (1 percent), and fat-free (skim) milk are not recommended during the first 2 years of life.
- At about 4 to 6 months of age, when the infant is developmentally ready (i.e., infant is able to sit with support and has good control of the head and neck), supplemental foods can be introduced one at a time, at intervals of 7 days or more.
- After the infant accepts iron-fortified infant cereal, pureed or soft fruits, vegetables, and meats can be offered.
- Fruits and vegetables rich in vitamin C help the infant absorb iron.

### 30 PERCENT FAT INTAKE AT DIFFERENT LEVELS OF CALORIC INTAKE

<table>
<thead>
<tr>
<th>Calories</th>
<th>1,600</th>
<th>2,200</th>
<th>2,800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fat (grams)</td>
<td>53</td>
<td>73</td>
<td>93</td>
</tr>
</tbody>
</table>
Early Childhood

- Calorie, fat, and cholesterol intake should not be restricted for children younger than 2 because this is a period of rapid growth and development, with high energy and nutrient requirements.
- After 2 years of age, children's diets need to gradually change so that, by the time they reach 5 years of age, they consume no more than 30 percent of their daily calories from fat.
- As children begin to consume fewer calories from fat, they need to eat more grain products; fruits; vegetables; low-fat dairy products and other calcium-rich foods; and beans, lean meat, poultry, fish, and other protein-rich foods.
- Children 2 to 3 years of age need the same number of servings as children 4 to 6, but may need smaller portions, about two-thirds of a serving.
- Children usually need three meals a day plus snacks.
- Because young children often eat small amounts of food at one time, offer healthy foods (e.g., milk, fruits, vegetables, cooked meat or poultry, whole-grain crackers) as snacks.

Middle Childhood

- Caloric requirements vary during middle childhood. Children in this developmental period should be encouraged to eat at least the minimum number of recommended daily servings from each of the five major food groups every day.
- Consumption of high-fat and high-sugar foods at the top of the Food Guide Pyramid (e.g., butter, margarine, salad dressing, candy, soft drinks) should be limited.

Adolescence

- Adolescent males and physically active adolescent females need to eat the maximum number of recommended daily servings from each of the five major food groups every day. Most adolescent females need the middle ranges of servings, especially when they are active or growing.
- Adolescents need three servings per day from the milk, yogurt, and cheese group to meet their calcium needs, because bone density increases well into young adulthood (the 20s). Eating foods that provide enough calcium to attain maximum bone density helps prevent osteoporosis and bone fractures later in life.
Physical Activity

Regular physical activity in childhood and adolescence has many benefits: It improves strength and endurance, builds healthy bones and muscles, develops motor skills and coordination, controls weight, builds lean muscle, reduces fat, reduces feelings of depression and anxiety, and promotes psychological well-being. In addition, many children and adolescents like physical activity because it is fun, they can do it with friends, and it helps them learn skills, stay in shape, and feel better.

Physical activity is any movement that uses energy. Physical activity encompasses a wide range of activities, from running, biking, swimming, and skating to walking, jumping rope, dancing, and playing group sports such as soccer, basketball, and volleyball.

The Surgeon General’s report on physical activity and health states that everyone should participate in a moderate amount of physical activity (e.g., 15 minutes of running, 30 minutes of brisk walking, 45 minutes of playing volleyball) on most, if not all, days of the week.

To help people better understand new physical activity recommendations, the Children’s Activity Pyramid was developed. Similar to the federal government’s Food Guide Pyramid, the Children’s Activity Pyramid illustrates a “balanced diet” of weekly physical activity and various forms of traditional exercise.

*Source: Reproduced, with permission, from the University of Missouri–Columbia, University Extension.*
Some important principles of physical activity for children and adolescents follow.8

- Children and adolescents are inherently active.
- Children and adolescents have a relatively short attention span. However, with each passing year, they increase the length of time they can maintain interest in a specific activity.
- Children and adolescents are concrete thinkers rather than abstract thinkers. They need concrete reasons for participating in an activity. If the reasons are too abstract, such as ensuring future health, they are unlikely to continue the activity.
- Children and adolescents are active intermittently and need frequent rest periods.

- Children and adolescents master their environment by learning to perform physical tasks.
- Most children and adolescents learn physical activity skills during the school years.
- Children and adolescents who are inactive are much more likely to be sedentary as adults.
- Self-efficacy in physical activity is one of the best ways to ensure that children and adolescents will participate in physical activity throughout life.
- Children and adolescents who have active families and who participate in regular physical activity with family members are more likely to be active than those whose families are not physically active.
- Just as children and adolescents can get in the habit of participating in regular physical activity, they can also learn to be inactive if they are not given opportunities to be active.
- Partnerships among health professionals, families, and communities can help children, adolescents, and their families adopt healthier lifestyles.

**Physical Activity Counseling**

Children and adolescents learn by example—if parents enjoy and participate in regular physical activity, their children and adolescents will too. Following are some ideas health professionals can share with children, adolescents, families, school personnel, and community program staff to encourage children and adolescents to participate in physical activity.

**General Tips**

- Encourage children and adolescents to participate in physical activity on most, if not all, days of the week.
- Provide opportunities for physical activity.
- Make physical activity enjoyable.
- Support children’s and adolescent’s efforts to be physically active.
- Encourage children and adolescents to participate in physical activities they can continue throughout life.
Help children and adolescents succeed and increase their confidence in physical activity.

Teach children and adolescents about the benefits of physical activity and help them develop positive attitudes toward it.

Adapt activities to children and adolescents with special health care needs.

Help children and adolescents overcome barriers that keep them from being physically active.

At Home

Tips for Children and Adolescents

Help with household chores to incorporate physical activity into daily life (walk the dog, vacuum, mow the lawn, rake the leaves, sweep the walk, wash the car).

Tips for Parents

Schedule time for physical activity.

Take turns selecting physical activities family members and friends can do together.

Participate in physical activity with your children and adolescents.

Participate in physical activity yourself to be a positive role model.

Provide toys, games, and equipment that promote physical activity.

Teach children to play safely (not playing in the street).

Provide appropriate safety equipment (helmet, wrist guards, elbow and knee pads) and ensure that children and adolescents use it during physical activity.

Ensure that children and adolescents drink enough water before, during, and after physical activity.

Limit the time your children and adolescents spend watching TV and videotapes or playing computer games to 1 to 2 hours a day.

In the Community

Tips for School Personnel and Community Program Staff

Offer physical education in school.

Offer physical activity programs during nonschool hours (after school, on weekends, during the summer).

Provide older children and adolescents with a mix of competitive and noncompetitive physical activities.

Set goals for increasing physical activity levels and keep track of progress.

Provide programs that teach families about physical and motor skill development.

Provide appropriate safety equipment (helmet, wrist guards, elbow and knee pads) and ensure that children and adolescents use it during physical activity.

Provide enough water for children and adolescents before, during, and after physical activity.

Make physical activity programs accessible to children and adolescents from families with low incomes by providing transportation and appropriate equipment.

Maintain policies (preservation of green space) and provide environmental support (well-maintained sidewalks) to promote physical activity.

Provide safe environments for indoor and outdoor physical activity (walking and biking paths, playgrounds, parks, recreation centers).

Tips for Parents

Advocate for physical education in school.

Help with physical activity programs at your child’s or adolescent’s school.

Encourage schools to offer opportunities for physical activity during nonschool hours (after school, on weekends, during the summer).

Adopt a highway, park, or beach, and keep it clean.

Organize family outings that include physical activity.
■ Identify safe places for children and adolescents to participate in physical activity.

■ Identify activities (walking, biking, hiking) for children and adolescents to participate in and places (basketball and tennis courts, community swimming pools) for participating in physical activity at no or reduced cost.

■ Work with the community to ensure that children and adolescents from families with low incomes have transportation to and from physical activity programs and appropriate safety equipment.

References


6. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; President’s Council on Physical Fitness and Sports. 1996. Physical Activity and Health: A Report of the Surgeon General. Washington, DC: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; President’s Council on Physical Fitness and Sports.


A community can be defined by its geography, its government, and the services it offers (e.g., social, education, health). A community’s character reflects its size, its cultural diversity, and the common interests of its residents. Communities need systems, funding, and resources to meet the nutrition needs of residents.

Nutrition services are usually provided by dietitians, nutritionists, and other health professionals; however, they may also be provided by others in the community, including social service providers, teachers, and child care and after-school program staff. Community settings—such as child care facilities, community centers, schools, colleges and universities, and clinics and hospitals—are excellent forums in which health professionals and others can provide nutrition supervision and promote optimal nutrition.

Partnerships for Promoting Optimal Nutrition

To promote optimal nutrition for infants, children, and adolescents, partnerships among health professionals, families, and communities are key. Partnerships can do the following:

- Assess the nutrition needs of infants, children, and adolescents
- Identify families’ health beliefs
- Establish nutrition priorities and develop, implement, monitor, and evaluate nutrition programs and services
- Promote healthy eating behaviors, regular physical activity, and a healthy lifestyle

Partnerships can be as informal as health professionals discussing nutrition issues and concerns with teachers, school food service employees, coordinators of after-school programs, and child care providers. However, formal partnerships may be needed. As communities develop strategies to achieve the goals outlined in Healthy People 2010, health professionals have an excellent opportunity to create these partnerships with families, community groups, government and business representatives, and others who are committed to improving the nutritional status of infants, children, and adolescents. Children and adolescents need activities in which they can learn about food and nutrition. Community activities that include serving a variety of foods that are healthy and tasty and meet a child’s or adolescent’s nutritional needs in a pleasant environment can help communicate healthy nutrition messages. Programs that offer meals and snacks during or after school or during the summer are other important opportunities for health promotion.
Nutrition Needs Assessment

One way for health professionals to assess the nutrition status of infants, children, and adolescents in the community is to gather information through a communitywide nutrition needs assessment. A nutrition needs assessment can identify the following:

- Adverse pregnancy outcomes (e.g., low birthweight, infant mortality)
- Breastfeeding rates (e.g., how many infants are breastfed, duration of breastfeeding)
- Growth data (e.g., length, height, weight)
- How many infants, children, and adolescents have iron-deficiency anemia
- How many infants, children, and adolescents are at risk for chronic diseases
- How many infants, children, and adolescents have special health care needs

Additional information can be gathered on employment, unemployment, and underemployment, which may indicate the risk of insufficient nutrition—and consequently hunger—in the community.

A less formal way to discern the nutrition status of infants, children, and adolescents in the community is through “shoe leather” observation: walking through neighborhoods and noting the kinds of foods sold by stores, including “mom and pop” stores; farmers’ markets; vendors; and restaurants. In addition, noting the kinds of products sold at local drug and health food stores provides invaluable insight into a community’s health beliefs and nutrition practices.

Informal assessments such as these provide information not only on the types of foods consumed in the community, but also on whether families have access to safe and nutritious foods at a reasonable cost. If neighborhood stores are limited in the variety of foods available, families that purchase most of their food from these stores are likely to have diets that reflect these limitations. For example, foods such as reduced-fat (2 percent), low-fat (1 percent), or fat-free (skim) milk and fresh fruits and vegetables may not be available in neighborhood stores. To buy these foods, families would need to shop elsewhere, which can involve additional transportation costs, increase the time needed to shop, and make it difficult to carry the food home.

Nutrition Services

Dietitians and nutritionists in the community work with Head Start programs, child care facilities, food and nutrition programs, and health departments and clinics that provide services to infants, children, and adolescents. Through a range of services, dietitians and nutritionists can help children, adolescents, and their families learn about healthy foods and how to store, handle, and prepare foods so that their nutrient content is retained.

Nutrition education helps parents form the foundation for their children and adolescents to practice healthy eating behaviors throughout life. Health professionals have many opportunities to educate families about nutrition. For example, they can provide education on healthy eating during pregnancy and breastfeeding, the introduction of solid foods to infants, and the importance of providing healthy foods to children and adolescents.

While emphasizing the importance of establishing lifelong healthy eating behaviors, health professionals must respect all cultures. Foods important in various cultures can be used in education efforts so that all families will feel comfortable and thus be willing to follow nutrition counseling.

Dietitians, nutritionists, and other health professionals in the community can provide leadership to ensure that healthy eating behaviors and regular physical activity are promoted by everyone committed to meeting the health needs of infants, children, and adolescents. Health professionals can also provide intervention strategies, referrals to specific health services, and follow-up after referrals are made. By communicating accurate and consistent information, health professionals can have a significant impact on the growth, development, and health and nutrition status of infants, children, and adolescents in the community.
Nutrition services in the community include the following components.

**Screening and Assessment**
- Developing nutrition diagnoses
- Developing individual nutrition plans
- Identifying other sources of nutrition and health information or guidance

**Counseling**
- Counseling children, adolescents, and their families about nutrition issues and concerns
- Providing referrals to food and nutrition programs if needed
- Providing monitoring and follow-up when indicated, and making referrals to a dietitian or other health professionals if needed

**Education**
- Developing curricula and teaching aids that are developmentally and culturally appropriate
- Preparing education materials for point-of-purchase distribution (e.g., stores, restaurants)
- Conducting in-service training for health professionals
- Conducting in-service training for school food service personnel
- Conducting education programs for children, adolescents, and their families

**Technical Assistance**
- Developing food service and nutrition performance standards
- Integrating nutrition into education, health, and physical education programs
- Developing health and nutrition services that are community based, family centered, and culturally sensitive

**Consultation**
- Consulting with health professionals, educators, and personnel from social services and other community agencies (e.g., housing and environmental protection agencies)

**Information Dissemination**
- Disseminating current and accurate information to health professionals, families, and the community
- Preparing and distributing informational and educational materials to community newsletters, newspapers, radio and television stations, and other media
Advocacy

• Promoting community-based food and nutrition resources
• Helping families obtain access to food and nutrition resources
• Developing strategies to address nutrition issues and concerns (e.g., nutritional inadequacy, hunger)
• Making health care delivery systems user-friendly and responsive to families’ needs

How to Find a Dietitian or Nutritionist in the Community

How can residents find a dietitian or nutritionist in their community? They can start by contacting local hospitals; the Special Supplemental Nutrition Program for Women, Infants and Children (WIC); Head Start and other child care programs; cooperative extension and school food programs; state, county, and city health departments; and local colleges and universities. Residents can also contact local affiliates of the American Heart Association, American Diabetes Association, American Dietetic Association, American Cancer Society, and March of Dimes. (See Tool J: Nutrition Resources.)

Suggested Reading


CULTURAL AWARENESS IN NUTRITION SERVICES

All people belong to some kind of cultural group. Culture influences the way people look at things, how they interact with others, and how they expect others to behave. Health professionals need to understand how their own cultures influence their attitudes and behaviors, and they need to understand other cultures and their implications for nutrition counseling.

Providing nutrition supervision to people from diverse cultural backgrounds can be both challenging and rewarding. Health professionals are given the opportunity to observe people and their traditions, including the foods they eat and occasions they celebrate. Such observations can enhance the health professional’s awareness and knowledge of other cultures.

Culture and Food

Food choices, which can be very personal, are influenced by culture. For many people, culture-specific foods are closely linked to their families and strong feelings of being cared for and nurtured. However, when discussing their food choices, people may respond by saying what they think the health professional wants to hear. Health professionals can encourage people to be more candid by asking open-ended, nonjudgmental questions.
The role of certain foods varies among cultures, but in most cultures, food is used for similar purposes. For example, in all cultures, staple, or core, foods form the foundation of the diet. A staple food—such as rice or beans—is typically bland, relatively inexpensive, easy to prepare, an important source of calories, and an indispensable part of the diet. In addition, people from virtually all cultures use food during celebrations, and many use food as medicine or to promote health.

Culture also influences how people prepare food, how they use seasonings, and how often they eat certain foods. These behaviors can differ from region to region and from family to family.

Acculturation—the adoption of the beliefs, values, attitudes, and behaviors of a dominant, or mainstream, culture—also influences a person’s food choices. Acculturation may involve altering traditional eating behaviors to make them similar to those of the dominant culture. These changes can be grouped into three categories: (1) the addition of new foods, (2) the substitution of foods, and (3) the rejection of foods. People add new foods to their diets for several reasons, including increased economic status and food availability (especially if the food is not readily available in the person’s homeland). Substitution may occur because new foods are more convenient to prepare, more affordable, or better liked than traditional ones. People, particularly children and adolescents, may reject eating traditional foods because it makes them feel different.

**Keys to Good Cross-Cultural Communication**

Good communication during nutrition supervision is important for providing anticipatory guidance. To keep the lines of communication open, health professionals must overcome any real or perceived differences between them and the people they serve. Being open, honest, respectful, nonjudgmental, and, most important, willing to listen and learn is critical. Health professionals can help people in a way that maintains their dignity. Some keys to good cross-cultural communication follow:1

- **Respect personal space.** Health professionals can make people feel comfortable by asking them to sit where they want. This allows people to have the personal space they need.
- **Learn and follow cultural rules about touching.** It is essential for health professionals to learn these rules, including rules based on a person’s sex. For example, in some Asian cultures, a person’s head should not be touched because the head is considered the “seat of wisdom.” In some American Indian cultures, a vigorous handshake may be considered a sign of aggression.
- **Establish rapport.** Health professionals can establish rapport with people by sharing experiences, exchanging information, and greeting and responding to them in culturally appropriate ways.
- **Express interest in people.** Health professionals can express interest in various ways: by smiling, being friendly and warm, asking questions (even about things they are unfamiliar or uncomfortable with), showing respect, and demonstrating that they are open-minded and trustworthy. Paying attention to children is also a good idea: This may impress mothers from particular cultures. However, health professionals need to be aware that people from some cultures believe that it is inappropriate to accept compliments about their children, especially if the children are present.
- **Listen carefully.** Health professionals must listen carefully and not interrupt people or try to put words in their mouths.
- **Respect silence.** Health professionals do not have to fill a silent moment with small talk. People need a chance to gather their thoughts, especially when they are trying to speak in a language they are not familiar with.
- **Notice how people make eye contact.** Health professionals need to observe how people make eye contact with family members and others. Many cultures consider it impolite to look directly at the person who is speaking. Lowering the eyes and glancing sideways may be seen as respectful, especially if the speaker is older or in a position of authority.
Pay attention to body language. Health professionals must learn what messages are conveyed by body movements, such as turning up the palms of the hands, waving, and pointing, and which gestures should be avoided.

Reach the appropriate family member. In some cultures, the oldest male is considered the head of the family, while in others, an elderly female has this role. Health professionals must ensure that their messages reach the head of the family.

Study a person’s responses. A “yes” response does not necessarily indicate that a person understands the message or is willing to do what is being discussed. The person may simply be showing respect for the health professional. For example, American Indians may not ask questions because they believe this would indicate that the health professional was not communicating clearly. People may smile or laugh to mask emotions or prevent conflict. Health professionals can make sure that a person understands by asking questions.

Common Nutrition Concerns Among Culturally Diverse Populations

Food and Health Beliefs

In many cultures, people believe that food promotes health, cures disease, or has other medicinal qualities. In addition, many people believe that maintaining balance is important to health. For example, traditional Chinese people maintain that health and disease are related to the balance between the “yin” and “yang” forces in the body. Diseases caused by yin forces are treated with yang foods to restore balance, and vice versa. In Puerto Rico, foods are classified as hot or cold (which may not reflect the temperature or spiciness of foods), and people believe that maintaining a balance between these two types of foods is important to health. Health professionals can become more effective by exploring such beliefs and incorporating them in their nutrition messages. (See Ethnic and Regional Food Practices: A Series in the list of suggested reading.)

Lactose Intolerance

Lactose intolerance is much more common in people of non-European ancestry. People who are lactose-intolerant may experience cramps and diarrhea when they eat moderate to large amounts of foods that contain lactose, such as milk and other dairy products. Children and adolescents may be able to avoid symptoms by consuming small servings of milk throughout the day or
by consuming lactose-reduced milk or lactase tablets or drops with milk. Cheese and yogurt are often better tolerated than milk because they contain less lactose. For people who cannot tolerate any milk or dairy products in their diet, health professionals can suggest other sources of calcium, such as dark green, leafy vegetables; tofu or corn tortillas processed with calcium; and calcium-fortified orange juice.

**Culturally Based Attitudes**

People from different cultures may view body weight differently. Keeping a child from being underweight may be very important to people from cultures in which poverty or insufficient food supplies are common. They may view excess weight as healthy and might be offended if a health professional refers to their children as overweight.

**Summary**

To meet the challenge of providing nutrition supervision to diverse populations, health professionals must learn to respect and appreciate the variety of cultural traditions related to food and the wide variation in food practices within and among cultural groups. Health professionals can take advantage of interactions with people from other cultures by sharing food experiences, asking questions, observing the food choices people make, and working with the community.

**Reference**


**Suggested Reading**
