

SECTION 5.4 COOKING AND NUTRITION

Of course, cooking is all about providing a pleasurable experience for your customers. One of the critical factors in this experience is balancing wonderful food and nutrition. To accomplish this, you must understand what makes a healthy diet and what nutrients the body really needs.

Everyone has heard stories about the child who will only eat grilled-cheese sandwiches and tomato soup, or the toddler who only wants chicken nuggets, fries, and crackers. But as people grow up, their tastes expand.

Study Questions

After studying Section 5.4, you should be able to answer the following questions:

- What is a healthy diet?
 - How can you use the Dietary Guidelines for Americans to plan meals?
 - What is MyPyramid?
 - What is a nutritional label, and how is it used?
 - What is obesity, and how can it be prevented?
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Healthy Diets

What is a healthy diet? According to the Dietary Guidelines for Americans, a healthy diet does the following:

- Emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products

- Includes lean meats, poultry, fish, beans, eggs, and nuts
- Is low in saturated fats, trans fats, cholesterol, salt (sodium), and added sugars

In the United States, nutrition professionals use standards and guidelines to teach people about and help them achieve a healthy diet. **Dietary Reference Intakes (DRIs)** are recommended daily amounts of nutrients and energy that healthy people of a particular age range and gender should consume. They are the guides for nutrition and food selection.

Two important Dietary Reference Intakes are Recommended Dietary Allowances (RDAs) and Adequate Intakes (AIs). **Recommended Dietary Allowances** are daily nutrient standards established by the U.S. government. They are the average daily intakes that meet the nutrient requirement of nearly all healthy individuals of a particular age and gender group. Different RDAs exist for men and women and for different age, height, and weight groups. The guidelines recommend specific amounts of protein, 11 vitamins, and 7 minerals. **Adequate Intakes** are similar to RDAs. They also identify daily intake levels for healthy people, but AIs are typically assigned when scientists don't have enough information to set an RDA.

[nutrition]

Do You Need Everything Every Day?

In nutrition, there are lots of nutrients to keep track of. Did I get enough pyridoxine (B₆) today? Have I eaten too much eicosanoic acid, a saturated fatty acid commonly found in peanut oil and butter? Will my body be able to handle the glucose load while I sleep? And what is my potassium status? Yikes! Too much to remember. Too many things to wonder over.

Relax! If you eat a varied diet in the United States, chances are you are doing fine. Vitamins and minerals are found in many foods. Include lots of fruits and vegetables and maybe a multivitamin in your diet, and you are probably covered. In fact, "overnutrition" is more of a problem in the United States than undernourishment.

Overnutrition usually means eating too many calories, too much sugar, and too much fat. This portioning aspect of nutrition needs daily attention. Every day you consume energy, and every day you burn energy. If you consume more than you burn, you will store the extra. You store extra energy as fat. Eating more than you use makes a body fat.

Rather than worrying about getting enough, plan to not get too much. Limit the number of high-fat and high-sugar foods you eat in a day. If you are gaining weight, you need to cut back. If you are losing weight, you could use a bit more.

Vegetarian Diets

People choose to eat vegetarian diets for many reasons:

- Religious beliefs
- Concern for the environment
- Economics
- Health considerations
- Animal-welfare factors
- Ethical considerations related to world hunger issues

A **vegetarian** is a person who consumes no meat, fish, or poultry products. There are different types of vegetarians:

- A **vegan** follows the strictest diet of all and will consume no dairy, eggs, meat, poultry, fish, or anything containing an animal product or byproduct, including honey. They consume only grains, legumes, vegetables, fruit, nuts, and seeds.
- A **lacto-vegetarian** consumes all the vegan items plus dairy products.
- An **ovo-vegetarian** consumes all vegan foods plus eggs.
- A **lacto-ovo-vegetarian** consumes all the vegan items plus dairy products and eggs.

A vegetarian diet can easily meet a person's nutrient requirements. Vegetarians need to eat a varied diet that includes enough calories to maintain weight. Vegetarians meet nutrient requirements by eating plant-based foods, such as fruits and vegetables, and beans, grains, nuts, and seeds. Most vegetarian diets have less fat, less cholesterol, and more fiber than a traditional American diet because they don't include meat in their diets.

Vegans need to be aware of their food choices. Because vegans do not eat any animal-based foods and there are no natural plant sources of vitamin B₁₂, vegans need to supplement their diet with a source of this vitamin. One option is to supplement their diets with multivitamin mineral supplements and include fortified and enriched foods. Vitamin B₁₂ is key for good health. Nutritionists recommend a vegan diet rich in nuts, canola oil, flax, and other seeds and soy products to increase vegans' intake of fatty acids and linolenic acid.

Overall, a well-planned and carefully followed vegetarian diet can give a person the needed nutrients.

The wide availability of meat substitutes, including vegetable- and soy-based burgers, nondairy milk such as soy milk, and convenience vegetar-

ian entrées helps meet the needs of vegetarians. In addition, more ethnic foods are available that place emphasis on vegetarian dishes, such as Indian, African, Mexican, and Middle Eastern cuisines.

These products are also available to restaurant and foodservice menu planners. The National Restaurant Association reports that 80 percent of table-service restaurants offer vegetarian entrées to meet the needs of these consumers. Also, because many college students classify themselves as vegetarians, they are demanding such offerings from restaurant and dormitory foodservice operations at colleges.

Dietary Guidelines for Americans

The Dietary Guidelines for Americans 2005 is a document published jointly by the Department of Health and Human Services and the USDA. Figure 5.45 is a picture of the Dietary Guidelines for Americans 2005. This report offers science-based advice for healthy people over the age of two about food choices to promote health and reduce risk for major chronic diseases. Like the recommended dietary allowances, these dietary guidelines apply to diets eaten over several days, not to single food items or meals. These guidelines are updated every five years to reflect the latest Dietary Reference Intakes and other research. They also form the basis for federal food and nutrition programs. Table 5.3 highlights the key recommendations presented in the Dietary Guidelines for Americans 2005.

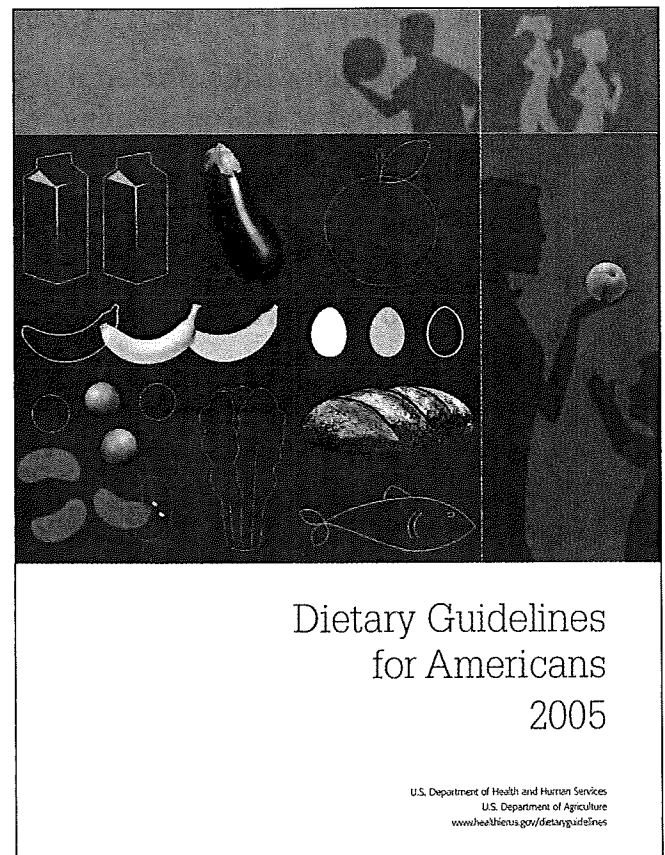


Figure 5.45: Dietary Guidelines for Americans.

[fast fact]

Did You Know...?

The Dietary Guidelines for Americans are periodically updated.

Table 5.3: Dietary Guidelines for Americans 2005

Adequate Nutrients within Calorie Needs	The human body requires more than 40 nutrients for good health. These nutrients should come from a variety of foods. One way to ensure variety is to choose foods each day from the five major food groups. Any food that supplies calories or nutrients can be part of a nutritious diet.
Weight Management	To maintain body weight in a healthy range, balance calories taken in with calories expended. People who are either overweight or underweight have increased chances of developing health problems. Being overweight is linked with shorter life expectancy, high blood pressure, heart disease, stroke, diabetes, certain cancers, and other types of illness. Being underweight is sometimes accompanied by malnutrition, eating disorders, and dehydration, and is linked to osteoporosis in women and a greater risk of early death in both women and men.
Physical Activity	Engage in regular physical activity and reduce sedentary activities to promote health, mental well-being, and a healthy body weight.
Fats	<p>Limit intake of fat, saturated fat, and cholesterol. High levels of saturated fat and cholesterol in diets are linked to increased risk for heart disease. A diet lower in fat makes it easier to include the variety of foods needed for nutrients without exceeding calorie needs, because fat contains more than twice the calories of an equal amount of carbohydrate or protein. Here are some suggested limits for fats:</p> <ul style="list-style-type: none"> • Total fat: An amount that provides less than 30 percent of total calories • Saturated fat: An amount that provides less than 10 percent of total calories • Cholesterol: Consume less than 300 mg per day; eating less fat from animal sources will help lower cholesterol (as well as total fat and saturated fat) in your diet <p>These limits apply to the diet over several days, and not to a single meal or food. Some foods that contain fat, saturated fat, and cholesterol, such as meats, milk, cheese, and eggs, also contain high-quality protein and are excellent sources of certain vitamins and minerals.</p>

continued

Table 5.3: Dietary Guidelines for Americans 2005 continued

Food Groups to Encourage	Choose a variety of fruits and vegetables each day. Consume 2 cups of fruit and 2½ cups of vegetables per day. Consume 6-ounce equivalents of grains, with 3- or more ounce equivalents coming from whole grain products per day. Consume 3 cups per day of fat-free or low-fat milk or equivalent milk products. Children should also be encouraged to eat plenty of these foods. Eating suggested amounts of these foods will help increase carbohydrates and dietary fiber, and decrease fats in your diet.
Carbohydrates	Choose fiber-rich fruits, vegetables, and whole grains often. Use sugars in moderation. High-sugar foods supply calories and energy, but are limited in nutrients.
Sodium and Potassium	Consume less than 2300 mg (approximately 1 teaspoon) of sodium per day. Most people consume much more salt and sodium than they need, especially from packaged, canned, snack, and fast foods. Consume potassium-rich foods, such as fruits and vegetables.
Alcoholic Beverages	Drink in moderation, if at all—no more than one drink per day for women and no more than two drinks per day for men. People engaging in activities that require skill, attention, and coordination should not consume alcoholic beverages. Women who are pregnant, planning to become pregnant, or lactating; children; adolescents; and people with specific medical conditions should also avoid alcohol.

Restaurant and foodservice operations can help their customers meet dietary guidelines by providing menu items that focus on the kinds of food mentioned in the guidelines:

- Fruit
- Vegetables from each of the vegetable subgroups of dark green, orange, legumes, starchy vegetables, and other vegetables
- Whole grains
- Lean meat and fish
- Fat-free or low-fat milk and dairy products

The ways menu items are prepared can also support the dietary guidelines. The guidelines recommend minimizing and monitoring the amounts of fat, sugar, and sodium that food-preparation techniques add. When planning and preparing menu items, it is important to remember that while there are no bad food items, there are individual needs and limits. If a variety of nutritious items is on the menu, customers will be able to select menu items that meet their specific dietary needs.

MyPyramid

The USDA's MyPyramid food guide and the Nutrition Facts panel serve as tools to help people put dietary guidelines into practice. **MyPyramid** translates the RDAs and dietary guidelines into the kinds and amounts of food to eat each day. **Nutrition Facts** panels help people select the appropriate packaged food products to meet their nutritional needs.

Individual needs regarding food combinations and portions vary based on age, activity level, and gender. MyPyramid, a tool developed by the USDA, has two educational purposes:

- It teaches people how to eat a balanced diet from a variety of food groups without counting calories.
- It teaches people how to include physical activity in their daily lives and adjust food intake for the amount of activity.

MyPyramid replaces the 1992 Food Guide Pyramid and incorporates the recommendations of the Dietary Guidelines for Americans 2005. Figure 5.46 is a graphic of MyPyramid.

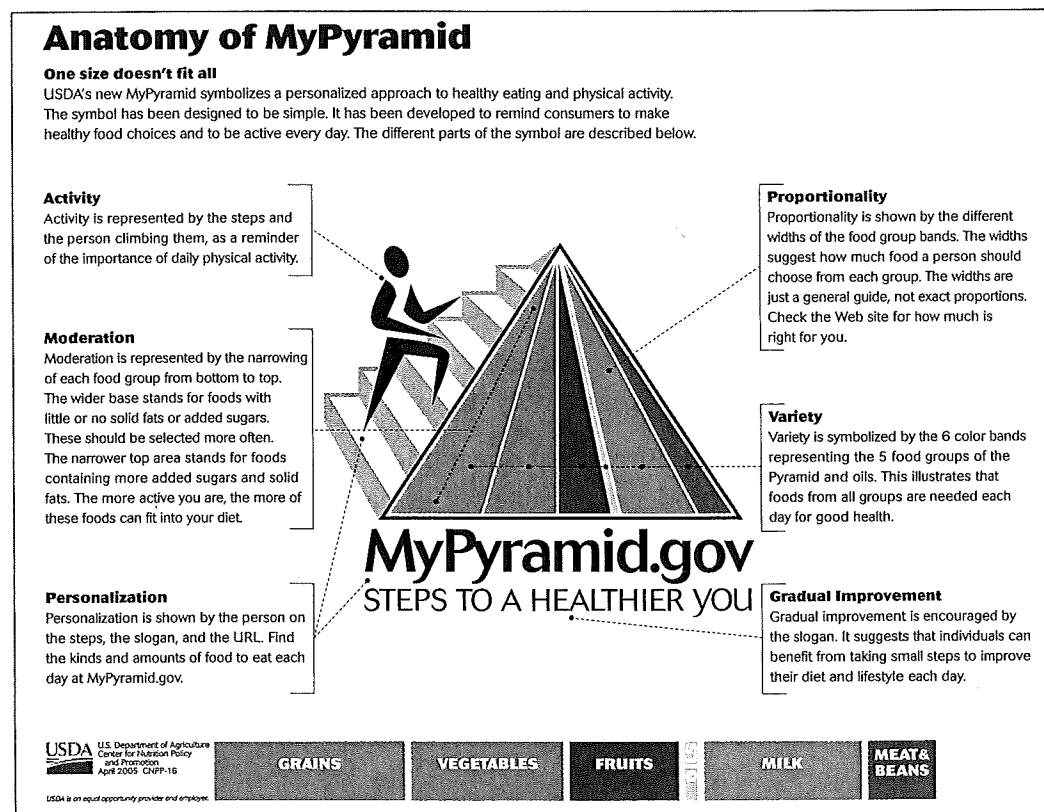


Figure 5.46: MyPyramid.

The food groups represented in MyPyramid are the following:

- Grains
- Vegetables
- Fruit
- Milk and dairy products
- Meat and beans

Fats and oils contain essential fatty acids and are also shown on MyPyramid, but are not considered a food group. There are calories allocated for these oils that are not part of the discretionary calorie allowance. The **discretionary calorie allowance** is the remaining amount of calories in a food intake pattern after accounting for the calories needed from all food groups. These calories should come from forms of food that are fat-free or low-fat and with no added sugars.

The MyPyramid symbol emphasizes six key themes:

1. **Proportionality:** The width of each colored band on the pyramid suggests how much food a person should choose from each food category. For example, the green band, which represents vegetables, is wider than the red band, which represents fruit. This suggests that people should include more servings of vegetables than fruit in their daily diets.
2. **Variety:** The color bands differentiate the six food categories representing the five food groups—grains, vegetables, fruit, milk, meat, and beans—plus fats and oils. This illustrates that food from all food groups is needed each day for good health.
3. **Physical activity:** In MyPyramid, a person's activity level is represented by the steps and the person climbing them. This is a reminder of the importance of daily physical activity. Nearly all Americans should be more active, because physical activity helps to maintain health.
4. **Moderation:** The narrowing of each food group from the bottom to the top represents moderation. The wider base represents food with little or no solid fats or added sugar. The USDA recommends choosing these food items more often. The narrower top represents food containing more added sugar and fat. The more active a person is, the more often these food items will fit his or her diet.

5. **Gradual improvement:** The MyPyramid slogan, “Steps to a Healthier You,” suggests that people can benefit from taking small steps to improve their diet and lifestyle.
6. **Personalization:** The slogan, the person on the steps, and the Web site all suggest personalization of food intake. Caloric needs vary by age and activity level. Most older adults need less food, in part due to decreased activity. Individuals who are trying to lose weight and eat smaller amounts of food may need to select more nutrient-dense food to meet their nutrient needs.

For specific guidelines or recommendations, visit www.MyPyramid.gov.

Using MyPyramid for Menu Planning

Many suggestions for applying the dietary guidelines to menu planning also apply to using MyPyramid. There are three ways restaurant and foodservice professionals can use MyPyramid for specific guidance:

- **As a guide to the appropriate serving sizes for the various food groups:** Proportion the serving sizes as the pyramid is proportioned: very little oil, smaller amounts of meat, and more vegetables, fruit, and whole grains.
- **To evaluate portion sizes:** Evaluate the portion sizes offered by an operation in light of the serving sizes and number; revise them as needed, or expand current menu offerings with additional portion sizes.
- **To provide a more balanced menu:** Use MyPyramid as a quick guide to what constitutes a healthful diet, and plan menus that help customers get the most nutrition for their calories when eating at an establishment.

Restaurant and foodservice professionals can offer a variety of food items to cover all food groups, select lean meat, and reduce the amount of fats and oils used in cooking. By doing this, an operation can offer a wide variety of healthful meals that customers can enjoy in good conscience.

Figure 5.47 shows the MyPyramid food categories represented by each color and gives examples of daily recommendations for female and male adults ages 19 to 30.

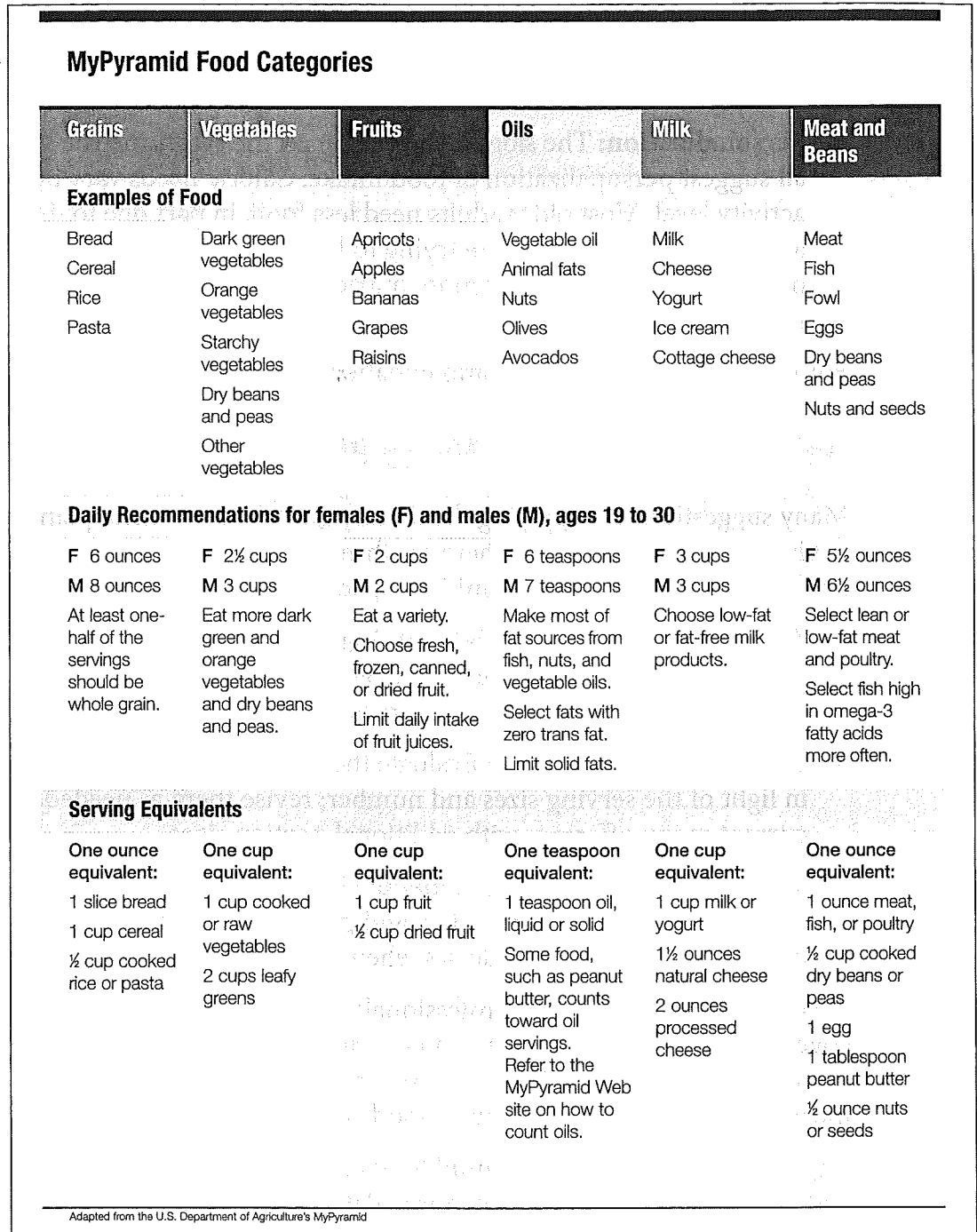


Figure 5.47: Daily recommendation for females and males ages 19 to 30.