Goal
Students will understand the importance of the right food choices in maintaining a healthy body.

Instructional Objectives
Students will be able to
1. Differentiate between healthy and unhealthy eating habits.
2. Explain the importance of a long-term healthy eating plan.
3. Choose healthy foods.

Background Information
Teaching students how to make heart-healthy lifestyle choices should include information about how proper nutrition is balanced with exercise. Specific components include choosing healthy foods, consuming appropriate portion sizes, understanding calorie requirements, determining a healthy weight, and establishing healthy eating habits to carry into adulthood. Students should understand that the decisions they make now affect their future health and well-being.

Before the new MyPlate system was developed, experts’ opinions differed on how to design a balanced diet. The old food guide pyramid was inadequate, based on the “one-size fits all” approach to healthy eating and neglecting the exercise factor. MyPyramid (2005) addressed dietary needs based on age, gender, and level of activity. The new MyPlate system (2011) helps people better understand portion size by using a place setting to represent five food groups: grains, vegetables, fruits, dairy, and protein. MyPlate takes into account the variety of foods that are in each group, portion sizes, recommended quantity, and health benefits.

The body needs energy to function and food provides that energy. Too much food (calories in) and not enough exercise (expended energy or calories out) can contribute to weight gain and eventually to an unhealthy heart. Each food has a specific amount of energy to give to the body, measured in calories. Each person needs a different number of calories to function, depending on factors like age, body composition, and level of activity. Counting calories may first appear to be old fashioned, but it is the best way to demonstrate the basic principle of balancing energy in with energy out. For example, the average adult must expend (burn off) 3500 calories worth of energy to lose a single pound of body weight.

There are several ways to determine proper body size, but one commonly used method is body mass index (BMI), a formula to assess body weight in relation to height. The BMI gives a measure of body composition and has been shown to be an effective predictor of body fat.

Materials
• 24-hour food diary recorded before studying the lesson.
• Internet connection in the classroom and/or for individual students.
Preliminary Preparation
A day or two before beginning this lesson, ask students to record a 24-hour food diary: pick a weekday and list every item of food or beverage consumed (with approximate serving size) during a 24-hour period. Do not give any nutrition advice when making the preliminary assignment; you need actual nutritional trends (eating habits) from the students. Have those diaries available in class when you begin this lesson.

Lesson Introduction
In previous lessons, we introduced the idea of the importance of nutrition for athletes. Good nutrition, exercise, and proper conditioning helps them function at their optimum level. Begin your lesson discussion by asking students if it is more important for an athlete to be in good condition, eat right, and exercise than it is for students. Lead them to understand that the decisions they are currently making regarding their eating and activity habits will influence their lives as adults. A balanced diet with lots of fruits and vegetables is a very important aspect of developing good habits into adulthood.

Direct the discussion to the body’s energy needs. The body needs energy to function; food provides that energy. Too much food (energy) and not enough exercise (expended energy) can contribute to weight gain and eventually to an unhealthy heart. Each food has a specific amount of energy to give to the body; this energy is measured in calories. (Calorie – a unit of energy-producing potential.)

Every individual needs a different number of calories to function. Counting calories is one of the best ways to determine if you are keeping the right balance between calories in and calories out, a balance that is important to maintaining a healthy weight. (Excess calories can be stored in your body as fat cells and your body must expend (burn off) 3500 calories (energy) to lose a pound of body weight.)

Using an internet connection, refer to the Body Mass Index calculator located at: http://www.texasheart.org/HIC/Topics/HSmart/bmi_calculator.cfm. Allow students to calculate their BMI to give them insight into their height/weight proportion. (This may be a subject that needs to be handled with caution and sensitivity; use your judgment before assigning the task to your students. Allow them to keep their results private if they wish.)

Compare the energy needs of individuals with different activity levels: the computer programmer who sits for hours at a time intensely thinking while doing his job or the expert mountain climber who guides expedition tours. Consider also the climate the individual works or lives in. The computer programmer is probably sedentary, working in an air-conditioned office. The mountain climber, on the other hand, is very active, working outside in a changing climate; perhaps beginning her climb in a warm climate and ascending to the icy cold, snow-covered mountaintop. Who uses more energy? What are the calorie needs for each of them? Would they eat different foods?

Refer to the website, www.choosemyplate.gov. Review each of the food groups: grains, vegetables, fruits, dairy, and protein.

Ask students to locate the MyPlate Daily Food Planner and determine their daily nutritional requirements. A new page will open with the particular requirements for that profile. Under the “View, Print, and Learn More” section in the right column, students can print their results, along with a meal tracking worksheet.

Ask students to experiment by changing the amounts of activity on the MyPlate Daily Food Planner to determine how increased activity relates to nutritional requirements. (For example, if they exercise more each day can they eat more?) Ask them to retain all of their printed information for the independent assignments.

Guided Practice
Most 6th grade students choose their own meals when ordering from the cafeteria, snack bar, or fast-food menu. Divide students into small groups to address the question of what to order when they are at the snack bar or fast-food restaurant. If Internet access is available, students can go to the website for a fast-food restaurant chain such as McDonalds, Burger King, KFC, or Subway and look for nutritional information. (Alternatively, most chains provide printed information about their food.) Using one
of the websites, find the nutritional value for a chosen meal. A fun way to do this is to look for the “add to my sack”, “build a meal”, or “add to my tray” area. Record or print off the nutritional components of the meal. Then make different choices (healthier ones) and compare the nutritional values to the first menu. This is a great way to learn how to order in a fast-food restaurant without over-spending on calories, sodium, and fat.

Independent Practice
Using their personal plans from the MyPlate site, ask students to design their own 24-hour eating plan, consisting of breakfast, lunch, snacks, and dinner for a weekday. Encourage them to choose foods they like to eat and don’t forget to include beverages. Ask students to compare that plan to the 24-hour food diary they recorded before beginning this lesson. Discuss the findings with the class.

Have students develop a healthy eating plan for 1 week (so it includes a weekend) by following the recommended guidelines established in their MyPlate personal plan. Encourage students to make it a family project with everyone following their own personal plans for a week. Have them develop and sign a healthy lifestyle contract with a parent or guardian. At the end of the week, ask students to discuss the results of the healthy eating plan. Some sample questions to ask: What did you have the most success with? What was the most challenging or disappointing and how can you overcome that? How can you make healthy eating a lifestyle choice? Who and what can help motivate you?

Extension
As an extension to the nutrition lesson, have students create a poster about a food unique to their family or culture, a food that may be unfamiliar to other students. The poster should illustrate the food, give its nutritional values (calories by serving size, vitamins, minerals, protein, carbohydrates, fats, sodium, etc.), how it is prepared, and any other facts about the food that would encourage other students to try it. Have a poster day so students can share the information with classmates. (The Suggested Links section of Project Heart lists websites that contain nutritional information about foods; one example is USDA National Nutrient Database, www.nal.usda.gov/ fnic/foodcomp/search/.)

Adaptation
Students who have difficulty writing or drawing may have their assignments adapted by allowing them to verbalize their responses with other students during guided and independent practice.

Assessment

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<th>Objective</th>
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