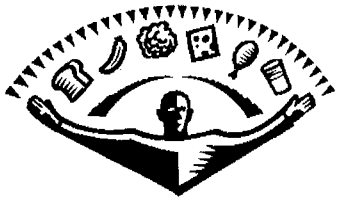
Lesson 5



Get the Nutrition Facts!

Learner Outcomes

After completion of the lesson, students will be able to:

- discuss the parts of the Nutrition Facts panel
- compare their typical food portions with serving sizes on the Nutrition Facts panel
- explain how %Daily Values on food labels are used
- use the label's Nutrition Facts panel to make informed food choices

Materials

- chalkboard, chalk
- "What's New About the New Food Label?" poster
- two large boxes (8 oz or more) of breakfast cereal, bowl, and measuring cups
- for the measuring stations:
  measuring cups
  scale for measuring in grams or ounces, if available
  glasses in two or more sizes
  plates
  food to measure, such as cooked pasta or rice, canned or frozen peas or other vegetable, fruit juice, and/or chips. Supply enough of each food to allow big portions.
- variety of food packages with new labeling
- "Nutrition Facts—for 'YO'!" activity sheet (page 18), one copy per student

LABEL FACTS

Get the facts—the Nutrition Facts! The nutrition panel on the package of macaroni and cheese—or on your favorite frozen cheese pizza—has more information than you may think.

Dish Up a Serving!

Take it from the top. Serving size is the first stop when you read the Nutrition Facts. That's because calorie and nutrient content is given per serving.

Just how big is a serving? On the new label, serving sizes are real-life, given in amounts close to what most people really eat. Servings may—or may not—match the serving sizes from the Food Guide Pyramid.

What if your appetite is bigger—or smaller? That's okay. Teens often dish up bigger servings ... and so consume more calories and nutrients than the amount listed on the label, too. Consider this example: The package says that a serving of macaroni and cheese is 1 cup. A teenage boy who eats 2 cups instead consumes twice the calories and nutrients on the Nutrition Facts panel. The reverse is true, too; smaller portions mean fewer calories and nutrients.

Check serving sizes on similar foods. You'll see that they're similar. That means you don't need to be a math whiz to compare two foods. It's easy to see the calorie and nutrient differences between similar servings of canned fruit packed in syrup and in natural juices. The same is true for two brands of packaged macaroni and cheese.

Look for servings in two measurements—common household and metric measures. A serving of macaroni and cheese would read: 1 cup (228 g). The household measure is easier for most people to understand. But the metric measure gives a more precise idea of the amount—for example, 2 cookies (26 g). The label helps you get familiar with metrics, too.

Calories: How Much in a Serving?

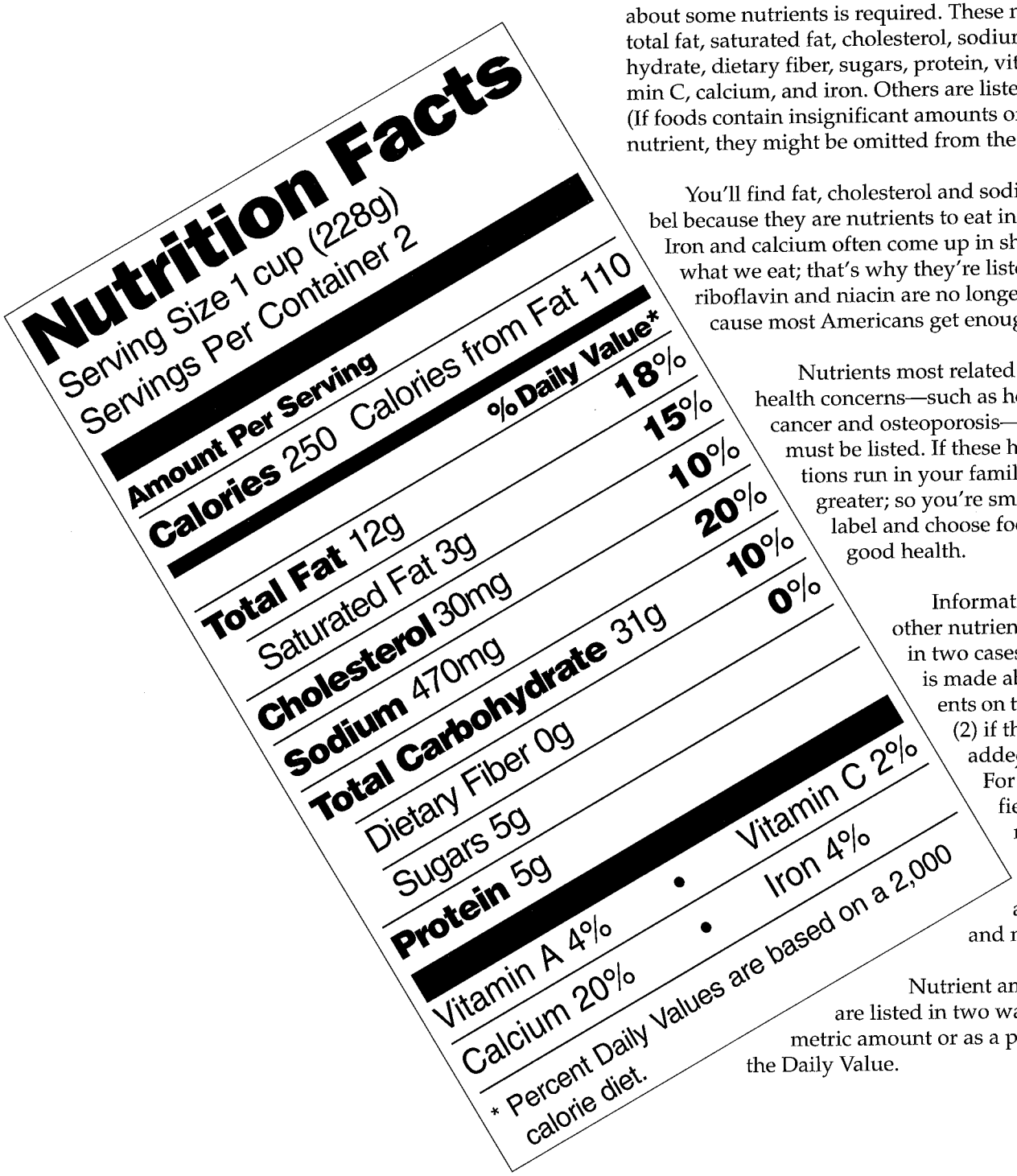
Calories per serving: That's the next stop on the Nutrition Facts panel. The label tells you the total calories in one serving, as well as the calories from fat. If you're a calorie watcher, check out the label to plan a diet that fits within your calorie goal. Then look beyond the calories to other Nutrition Facts to make sure you get all the nutrients you need.

Knowing how many calories come from fat helps you meet dietary guidelines: 30 percent or less of calories from fat each day. You'll need to add up the fat

grams in all your food choices for a day to figure the total percent of calories from fat. Reminder: Your total fat intake over a few days is important, not the percentage of fat in just one food or just one meal.

What's in It for You? **Nutrients!**

After calories, nutrients are listed next. Information about some nutrients is required. These nutrients are total fat, saturated fat, cholesterol, sodium, total carbohydrate, dietary fiber, sugars, protein, vitamin A, vitamin C, calcium, and iron. Others are listed voluntarily. (If foods contain insignificant amounts of a required nutrient, they might be omitted from the label.)



You'll find fat, cholesterol and sodium on the label because they are nutrients to eat in moderation. Iron and calcium often come up in short supply in what we eat; that's why they're listed. Thiamin, riboflavin and niacin are no longer listed because most Americans get enough of them.

Nutrients most related to today's health concerns—such as heart disease, cancer and osteoporosis—are ones that must be listed. If these health conditions run in your family, your risk is greater; so you're smart to read the label and choose foods for your good health.

Information about other nutrients is required in two cases: (1) if a claim is made about the nutrients on the label, or (2) if the nutrients are added to the food. For example, fortified breakfast cereals must give Nutrition Facts for any added vitamins and minerals.

Nutrient amounts actually are listed in two ways—in the metric amount or as a percentage of the Daily Value.

The 2,000-Calorie Basis

Percent Daily Values for energy-producing nutrients—fat, carbohydrate and protein—are based on a diet with 2,000 calories a day. That's a "user-friendly" number that allows consumers to easily adjust %Daily Values to their own diet and calorie intakes. Most teenagers need more calories.

Your daily calorie needs depend on many factors, including your age, height, weight, and physical activity level. Teenage athletes, for example, may need quite a bit more than their peers who are moderately active. A school nurse, physician or dietitian can help you figure out how many calories you need.

Daily Values are a guide to the total nutrient amount for a day; however, depending on your own needs, you may need more or less. Percent Daily Values show you how much of the recommended amount is in one serving.

These are Daily Values for the required nutrients and dietary components, based on a 2,000-calorie diet:

fat	**65 g**
saturated fat	**20 g**
cholesterol	**300 mg**
total carbohydrate	**300 g**
fiber	**25 g**
sodium	**2,400 mg**
protein	**50 g**
vitamin A	**5,000 IU**
vitamin C	**60 mg**
calcium	**1,000 mg**
iron	**18 mg**

NEW!!! Percent Daily Values

The %Daily Values are new on the label! They suggest the nutritional value of food and how it fits in a moderate, varied and balanced diet. Here's how to use them:

1. Check the %Daily Values for a general idea of the nutrient content—if a food contains a lot or a little of specific nutrients. A high %Daily Value means the food contains a lot of a nutrient; a low percentage means it contains just a little.

As an example, look again at packaged macaroni and cheese. Its label shows that the Daily Value for calcium is 20%, indicating that it's a good calcium source. However, it lists the Daily Value for iron as only 4% and for dietary fiber as 0%; other foods would be better sources of these nutrients.

2. Use the %Daily Values to make comparisons. Packaged macaroni and cheese may show the Daily Value for total fat as 18%. A similar product with fat-free cheese as an ingredient may have only 9% of the Daily Value for total fat.

3. Use %Daily Values to see how foods can fit into your overall daily diet.

The goal is to choose foods that together give you close to 100% of each nutrient for a day or average about 100% daily over a few days.

Because you may need to eat more carbohydrate, fiber, calcium, and iron, set a goal of at least 100%. Teenage girls especially need more calcium and iron.

For nutrients that most people need to moderate—total fat, saturated fat, cholesterol, and sodium—try to set 100% as a top limit.

Label Footnotes

Now find the footnotes on the bottom of some Nutrition Facts panels—with two more bits of nutrition information.

1. A reference chart for both a 2,000- and 2,500-calorie diet suggests: (1) your upper amount for total fat, saturated fat, cholesterol, and sodium and (2) your target intake for total carbohydrate and dietary fiber.

2. Some labels show how many calories one gram of fat, carbohydrate and protein supply. These amounts don't change:

fat	**9 calories per gram**
carbohydrate	**4 calories per gram**
protein	**4 calories per gram**

Learning Strategies

Complete Steps 1-3 only. Use teacher-created *Comparing Serving Sizes* worksheet, which is available on the electronic blueprint.

1. **Introduce Nutrition Facts.** Hold up two boxes of breakfast cereal. Ask: Suppose you were choosing a breakfast cereal. What might make you buy one over the other? How would you decide which one had the nutrients you need?

   Point out: The Nutrition Facts panel on the label can help you compare the calories and nutrients in these cereals—and make an informed choice.

   (You might refer to the poster "What's New About the New Food Label?" as you conduct the lesson.)

2. **Introduce servings.** Measure one cup of ready-to-eat breakfast cereal into a bowl. Ask: How much is in this bowl? Would you consider this to be one serving, or more, or less? Note that every person has a different notion of serving sizes. Ask: Why might serving sizes be important on a food label?

   Explain: Nutrition Facts on labels are given for a single portion of food; that's why the serving size is the first fact on the label.

3. **Compare serving sizes.** Assign students to measuring stations, each with different food(s). (See "Materials" on page 11.) Have each student portion or pour out the amount he or she usually eats or drinks, then measure or weigh that amount. Tell them which foods need to be weighed, and which ones measured. Then have them compare their portions to the serving sizes listed on the label for those foods.

   Discuss: On the label, how are serving sizes measured? Point out both household and metric measures.

   Discuss: How did your serving sizes compare to the amount on the label—more, less, or the same? If you ate that amount, how would your calorie and nutrient intake compare with the amounts on the label?

4. **Identify calories per serving.** Ask: How many calories would you eat if you ate two servings of this food? Just half a serving?

   Explain: Labels also tell how many of the calories come from fat. This number comes from multiplying the grams of fat by 9 calories per gram, and rounding it off. A healthy diet—*overall*—has no more than 30% of calories from fat. A single food may have more or less.

5. **Identify food components on the label.** Referring to the poster and the food packages, have students name the food components on the label. Ask: Which ones appear on almost all labels? Discuss nutrients about which information is required and why. Explain that there are different formats for Nutrition Facts.

   Discuss how nutrients are measured: metric weight and %Daily Values. Ask: What do these two amounts tell you about a food?

   Explain: Metric weight gives the exact amount. Percent Daily Values allow quick comparisons. They give a general idea of the amount of each nutrient one serving has and how it fits into a 2,000-calorie diet. Point out: Depending on your calorie needs, you may need more or less of these nutrients.

6. **Show how %Daily Values are derived.** On the board, write the Daily Values (see page 14). Explain: Daily Values refer to a total nutrient intake for a day; they're based on a 2,000-calorie diet. The %Daily Values in one serving are figured from these amounts.

   Refer to the poster of the Nutrition Facts Panel. Explain: On some labels, footnotes on the bottom show Daily Values for fat, carbohydrate, protein, cholesterol, and sodium in both a 2,000- and a 2,500-calorie diet.

   Ask: Why might you want to know the amount of fat, carbohydrate, protein, sodium, and fiber in food? Discuss them in relationship to the Dietary Guidelines.

   Explain: Experts recommend a goal of 30% or less calories from total fat, 10% or less from saturated fat, at least 60% from carbohydrate, and 10% from protein. They also suggest eating at least 20 grams of

fiber per day. Footnotes on labels show how much that is for two calorie levels. (The amounts of vitamins and minerals are the same for all calorie levels.)

For macaroni and cheese on the poster, show how %Daily Values are figured. For example, in a 2,000-calorie diet, the Daily Value for total fat is 65 grams; 12 fat grams in a serving is 18% of 65 grams (12 grams ÷ 65 grams = 18%). Use the footnotes to understand other %Daily Values.

7. **Determine personal goals for calories and %Daily Values.** Distribute the activity sheet "Nutrition Facts—for 'YO'!"

   Have students complete steps 1 and 2 on the sheet to estimate their own calorie needs. Point out: Most teens need more than 2,000 calories.

   Have students complete step 3 on the activity sheet to target their nutrition goals. Point out: Your needs for fat, carbohydrate, fiber, and protein are based on your calorie needs.

   Ask: What %Daily Value for fat, cholesterol, sodium, carbohydrate, and fiber is your target goal? 100% or more? Remind them: Everyone should strive for 100% Daily Value for vitamins and minerals; that amount is recommended for most healthy people.

8. **Plan a day's menu to meet the %Daily Values.** Explain: Daily Values help you eat a balanced and moderate diet.

   Have each student use Nutrition Facts on the food packages to plan a daily menu that's targeted to his or her calorie level and %Daily Value goals. This can be an extended homework assignment.

   Have students add up the %Daily Values for the nutrients in their menus. Explain: If vitamins and minerals total at least 100 percent, the amount is adequate. For the other food components, the %Daily Value depends on your calorie level. For example, for a calorie level of 2,500, your carbohydrate intake should add up to 125% Daily Value, which equals 375 grams.

To Learn More ...

1. **Shopping Savvy.** As a homework assignment, have students make these comparisons at the supermarket:

   - frozen vegetables—plain and with sauce—for nutrient content and taste preference
   - various breakfast cereals for nutrient content
   - boxed and frozen macaroni and cheese for nutrition, convenience and cost
   - fresh, canned and frozen fruits or vegetables for nutrition, cost, and ease of preparation
   - meat, poultry, fish, and dry beans for iron, protein, fat content, and dietary fiber

2. **Label Math.** Review: Health experts advise a goal of 30% calories or less from total fat, 10% or less from saturated fat, at least 60% from carbohydrate, and 10% from protein.

   Have students calculate the target grams of total fat, saturated fat, carbohydrate, and protein in their diets. Have them use their own calorie level from step 2 of the activity sheet. Show this example for a 2,200-calorie-a-day diet:

   Total Fat
   2,200 calories x 30% calories from fat = 660 calories from fat

   660 calories ÷ 9 calories per gram of fat = 73 grams of fat (rounded)

   Saturated Fat
   2,200 calories x 10% calories from saturated fat = 220 calories from saturated fat

   220 calories ÷ 9 calories per gram of saturated fat = 24 grams of saturated fat (rounded)

   Carbohydrate
   2,200 calories x 60% calories from carbohydrate = 1,320 calories from carbohydrate

   1,320 calories ÷ 4 calories per gram of carbohydrate = 330 grams of carbohydrate

   Protein
   2,200 calories x 10% calories from protein = 220 calories from protein

   220 calories ÷ 4 calories per gram of protein = 55 grams of protein

3. **More About Nutrients.** As a nutrient review, have each student develop a brief presentation on one nutrient typically found on the label. Have students report on its role in health, its best food sources, the effects of eating too much or too little, and other points. Encourage students to use food labels in their reports.