

IT'S IN THE LABEL





It's in the Label—The Food Label

Objectives

Students will:

- Learn why it is important to read food labels.
- Learn how to use a food label to compare fat content in foods.

Time Needed

50 minutes

Getting Ready

Read:

- Teacher Background Information

Make:

- *Pick a Pizza* transparency

Duplicate:

- *Pick a Pizza*

Curriculum Links

- Health
- Consumer Education
- Mathematics

OVERVIEW OF LESSON—Attractive packaging and clever advertising often hide the nutritional quality of a food.

Students will use food labels to compare the fat content of similar foods so they can make more informed choices. Fat content is the focus of this lesson. Most Americans consume more fat than is recommended. High-fat diets have been linked to obesity, heart disease, diabetes, and certain types of cancer.

Activity Steps

1. Ask students: Do you know the percent of your daily calories that should come from fat?

Answer: For optimal health, total fat intake should be between 25–35% of your daily calories, with most of the fats coming from polyunsaturated and monounsaturated fats, such as fish, nuts, and vegetable oils. The grams of fat each person needs every day depends on the person's age, gender, physical activity level, growth and the number of calories eaten in a day. For example, someone who needs 2100 calories per day needs between 58–82 grams of fat per day; someone who needs 3000 calories per day needs between 84–116 grams of fat per day. Write these ranges on the chalkboard. Usually, the more calories someone needs, the more fat they need. A very active male teenager who needs 3000 calories per day will need more fat than a fairly inactive female teenager who needs fewer calories per day. In general, Americans eat way too much fat.

2. Ask students: What are the different types of fats?

Answer: All fats and oils are a mixture of saturated fatty acids and unsaturated fatty acids. Fats that are solid at room temperature like shortening, lard, or butter contain more saturated fats and/or trans fat than oils. Fats that are liquid at room temperature like olive oil or vegetable oil contain more monounsaturated and polyunsaturated fats. Saturated fats, trans fats, and cholesterol tend to raise cholesterol levels in the blood, which in turn increases the risk for heart disease. The goal for all Americans is to limit intake of saturated fats,



trans fats and cholesterol in order to lower risk for heart disease. Less than 10% of calories should come from saturated fat. Trans fat intake should be as low as possible. For example, if someone needs 2100 calories per day, their saturated fat intake should only be 10% of these calories or 23 grams.

3. Discuss Pick a Pizza using the handout and overhead transparency. Compare calories per serving, total fat and saturated fat grams per serving (see circled numbers on handout). Because much of the fat in a food is hidden, reading the label is an important way to determine the amount of fat in a food. Ask students to identify which pizza they would typically choose given the choice of the three on the handout. Ask them to honestly determine how many slices of pizza they would eat and then figure out how many fat grams and saturated fat grams they would consume (e.g., if a student picked Peppy Pepperoni Pizza and ate three slices, then that student would have eaten 63 grams of total fat (21 g per slice \times 3 slices = 63 g fat), and 27 grams (9 g per slice \times 3 slices) of saturated fat. Ask students to compare the number of fat grams they would have eaten with the suggested range. How close were students to meeting their daily target of fat grams? Note that food labels are now required to list the amount of trans fat in foods right underneath the saturated fat. Many food manufacturers have begun to eliminate trans fat from their products all together. Health experts emphasize eating as little trans fat as possible.

Ask students to brainstorm ways they can eat their pizza and still have a healthy diet. Some ideas may include:

- Eat fewer slices of pizza.
- Choose pizza with lower fat toppings such as vegetables and Canadian bacon.
- Eat pizza with low-fat side dishes such as salad with low-fat/non-fat dressing or fruit.
- Eat lower fat foods for the remainder of the day/week.
- Eat high-fat foods, such as pizza, less frequently.



Extensions

- **Optional School Outreach Activity:** Ask students to work with the school nutrition director to promote healthy eating on campus. Start a Nutrition Advisory Council, which allows students to participate in taste testings of new cafeteria foods. Survey peers about their food preferences, plan school menus, etc. Coordinate this effort with the school nutrition director and the School Nutrition Association, which can be reached at 1-800-877-8822.
- **Optional School Outreach Activity:** Collect food labels from snack foods sold on campus. Ask students to compare fat content and display their findings through graphs or creative posters. Request permission to hang the posters in the cafeteria or near the vending machines. Have students develop a campaign that promotes food label reading (e.g., “Read the Label Before You Eat!”). If students want to determine whether a food is low-fat (30 percent or less of total calories from fat), have them do the math (e.g., for Peppy Pepperoni Pizza take 189 calories from fat and divide that by 405 calories per serving to get 0.467. Multiply 0.467 by 100 to get 46.7 percent of calories from fat.)
- **Optional Community Outreach Activity:** Ask students to go to their local grocery store and compare reduced-fat products with their regular counterparts. Have students share what they learned.

Teacher Background Information

Until 1990, food labeling was a free-for-all. Many food packages contained no nutrition information other than a list of ingredients. In 1994, the Nutrition Labeling and Education Act was enacted for virtually all foods and requires:

- Easier to read “Nutrition Facts” label.
- Mandatory nutrition labeling on nearly all packaged foods.
- Standard serving sizes.*
- Legal definitions of terms such as “low-fat,” “light,” and “fat-free.”

**Serving size is based on how much people ordinarily eat and is not necessarily the amount you actually eat. This is important because food labels apply to one serving. So, if a serving is 1 cup and you eat 2 cups, then you consumed twice the amount of calories and other nutrients listed on the label.*



Nutrition experts recommend that for optimal health, no more than 25–35% of total calories consumed during the week come from fat. This translates to anywhere between 58–116 grams of fat per day for teenagers, depending on their calorie needs.

Other key terms on food labels are defined as follows:

Calories: A measure of energy in food mainly provided by carbohydrates, fat, and protein.

Calories from Fat: The amount of calories supplied by fat in a serving of food (1 gram of fat = 9 calories). Health experts recommend that no more than 25–35% of total calories come from fat for a healthy diet.

Trans Fat: A type of fat made when manufacturers add hydrogen to vegetable oil that turns liquid oils into solid fats (a process called “hydrogenation”). This type of fat clogs heart vessels and is associated with an increased risk for heart disease

Saturated Fat: A type of fat supplied in one serving of food expressed in grams. This type of fat clogs heart vessels and is associated with an increased risk for heart disease.

Sodium: The amount of sodium in one serving of food. Salt is a major contributor of sodium in the diet. Diets high in sodium may increase the risk of heart attack or stroke especially for those with high blood pressure.

Sugars: The amount of sugar in one serving of food. Sugar may be identified on a label as fructose, corn syrup, honey, etc.

Fat-free: Less than 0.5 gram of fat per serving. Remember: A fat-free food can still have lots of calories.

Light/Lite: A nutritionally altered product. Contains one-third fewer calories or half the fat of the regular form of this food.

Low-fat: Contains three grams or less of fat per serving.

Reduced-fat: Contains at least 25 percent less calories from fat per serving than the regular form of this food.



Pick a Pizza

Peppy Pepperoni Pizza

Nutrition Facts	
Serving Size 1/4 Pizza (152g)	
Servings Per Container 4	
Amount Per Serving	
Calories 405	Calories from Fat 189
% Daily Value*	
Total Fat 21g	32%
Saturated Fat 9g	45%
Trans Fat 0g	0%
Cholesterol 40mg	13%
Sodium 930mg	39%
Total Carbohydrate 35g	12%
Dietary Fiber 3g	12%
Sugars 7g	
Protein 19g	

Charley's Cheese Pizza

Nutrition Facts	
Serving Size 1/4 Pizza (138g)	
Servings Per Container 4	
Amount Per Serving	
Calories 317	Calories from Fat 117
% Daily Value*	
Total Fat 13g	20%
Saturated Fat 8g	40%
Trans Fat 0g	0%
Cholesterol 35mg	12%
Sodium 580mg	24%
Total Carbohydrate 34g	11%
Dietary Fiber 2g	8%
Sugars 7g	
Protein 16g	

Garden Delight Veggie Pizza

Nutrition Facts	
Serving Size 1/4 Pizza (131g)	
Servings Per Container 4	
Amount Per Serving	
Calories 243	Calories from Fat 63
% Daily Value*	
Total Fat 7g	11%
Saturated Fat 2.5g	13%
Trans Fat 0g	0%
Cholesterol 10mg	3%
Sodium 500mg	21%
Total Carbohydrate 31g	10%
Dietary Fiber 3g	12%
Sugars 5g	
Protein 14g	