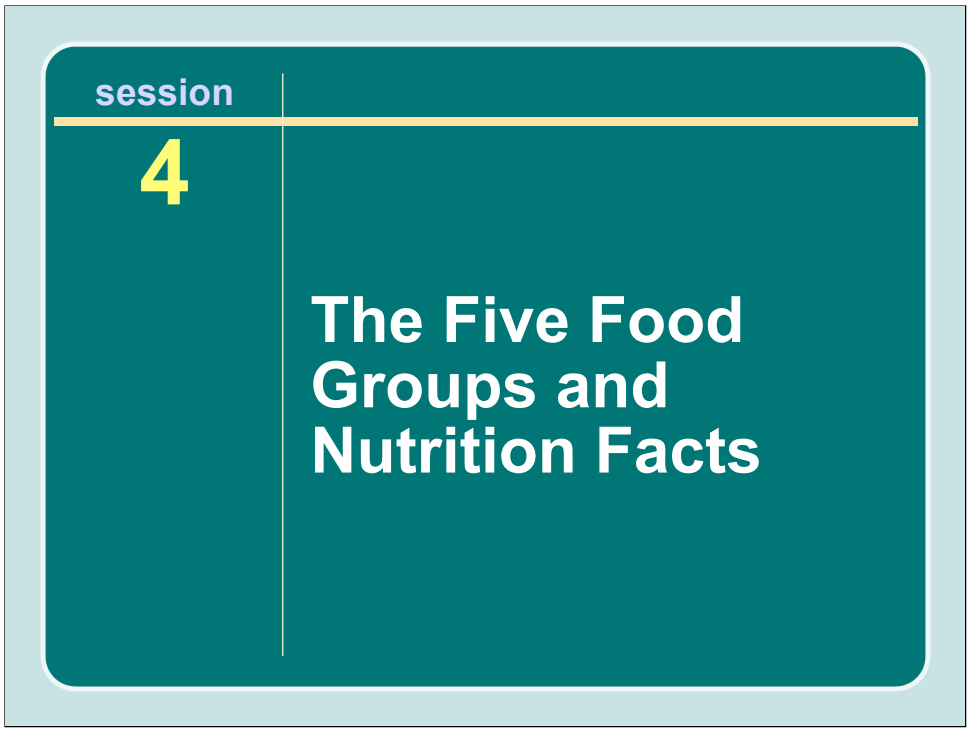


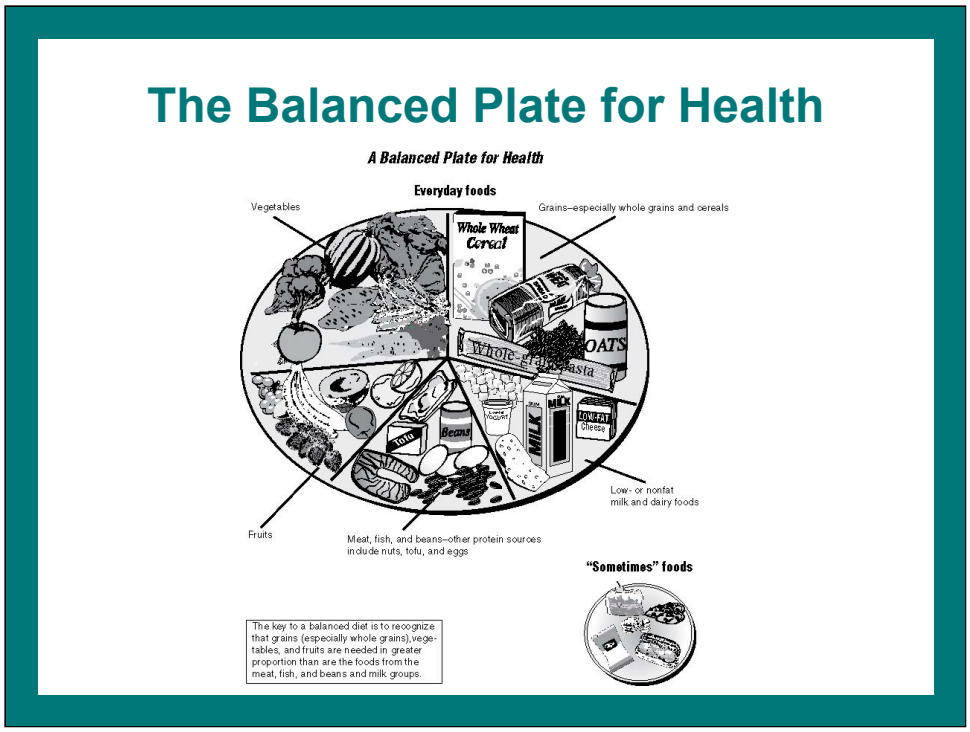
(Note to the presenter: Comments in parentheses are instructions to follow while giving the presentation. Do not read the comments to participants. This convention will be followed throughout the notes in this slide show.)

(Give give each participant a copy of this presentation, obtained by printing the PDF version of these slides from the Training 2 folder on this CD-ROM.)

This session focuses on the five food groups and the best choices in each group. It also introduces the Nutrition Facts food label in more depth.

(Go over the five basic food groups with participants: grains; vegetables; fruits; meat, fish, and beans [meat, poultry, fish, dry beans, eggs, nuts, and meat alternatives]; and milk.)

There are five basic food groups: grains; vegetables; fruit; meat, fish, and beans (meat, poultry, fish, dry beans, eggs, nuts, and meat alternatives); and milk (which includes yogurt and cheese).



(*Distribute the Balanced Plate for Health handout from the Additional Resources folder on this CD-ROM*.)

Each food group provides certain nutritional benefits, so foods from each group should be consumed each day.

The key to a balanced diet is to recognize that grains (especially whole grains), vegetables and fruits are needed in greater proportion than foods from the meat, fish & beans and milk groups. This principle is illustrated by the Balanced Plate for Health diagram that is used in several *Eat Well & Keep Moving* lessons.

A healthy and balanced diet also contains a variety of foods from within each food group, since each food offers different macronutrients (the energy providing nutrients, namely carbohydrates, proteins, and fats) and micronutrients (vitamins and minerals).

Eating a variety of foods also keeps our meals interesting and full of flavor.

Note that the Balanced Plate for Health does not contain sweets, foods that are high in saturated or trans fats, or foods that are low in nutrients. These are "sometimes" foods, not everyday foods. “Sometimes” foods should be eaten in moderation, and they are depicted on a small side plate.

Grains: Make at Least Half of Your Grains Whole Grains

- **Grains contain carbohydrate, fiber, and some vitamins and minerals.**
- **Whole grains are the healthiest choices.**
- **Choose foods that list a whole grain as the first ingredient and that are rich in fiber.**
- **Examples of whole-grain foods include whole wheat bread, oatmeal, whole-grain crackers and breakfast cereals, whole wheat pasta, barley, brown rice, and plain popcorn.**

(Distribute the Food Group Examples handout from the Additional Resources folder on this CD-ROM. Distribute food labels from lesson 10 for Sweet Potatoes [page 156 in the book], Plums [page 156 in the book], Chicken [page 157 in the book], and Skim Milk [page 157 in the book]. Distribute any other food labels you have collected. Review the following information with participants:)

•Basic nutrients from the grains category are carbohydrate, fiber, and some vitamins and minerals.

•In the grains group, the healthiest choices are whole grains, the less processed the better. Whole grains contain fiber, vitamins, and minerals; the refining process strips away many of these beneficial nutrients. Even though refined grains (such as white bread, white rice, and white pasta) are fortified with vitamins and minerals, fortification does not replace all of the lost nutrients.

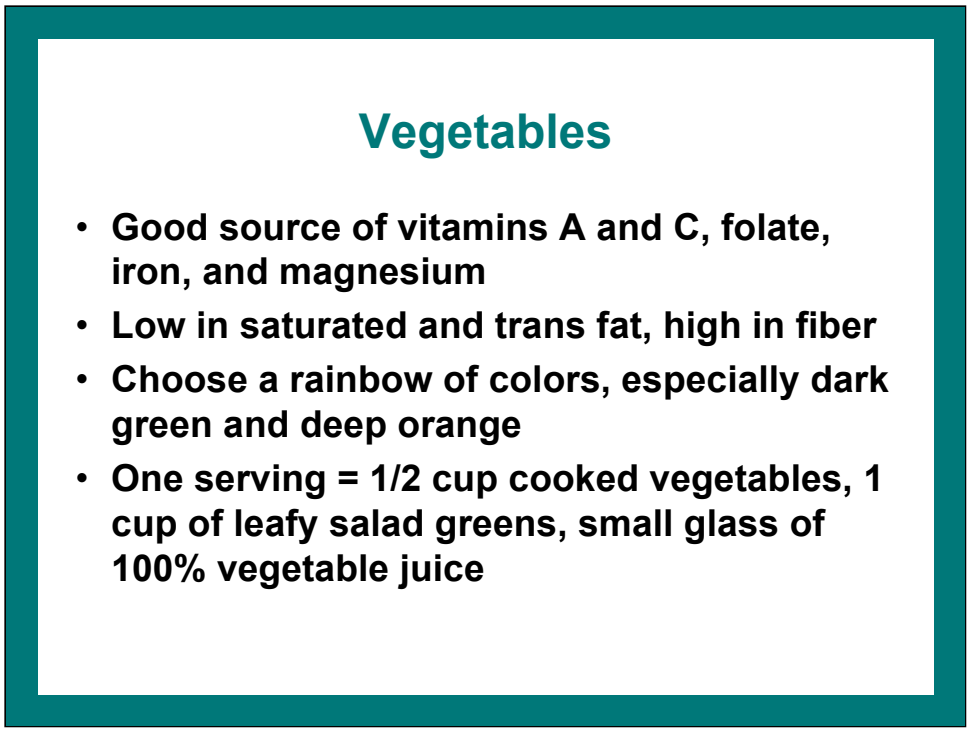
•Choose foods that list a whole grain as the first ingredient. Examples of whole grains include whole wheat bread, oatmeal, whole-grain crackers and breakfast cereals, whole wheat pasta, and other whole grains such as barley, brown rice, and plain popcorn.

•Look at the % Daily Value (% DV) for fiber on the Nutrition Facts label. The % Daily Value tells you whether a food is low or high in a nutrient. Whole-grain foods have a higher % DV for fiber.

Go for 5 Fruits and Veggies—More Is Better!

- **Fruits and vegetables provide vitamins, minerals, and carbohydrate.**
- **Eat 5 or more servings of fruits and vegetables every day.**
- **More is better! Choose fruits and vegetables in a rainbow of colors.**

Vegetables and fruits provide vitamins, minerals, and carbohydrate. In general they promote overall good health. Eat 5 or more servings of vegetables and fruits every day; eating more is better.



Vegetables (e.g., broccoli, spinach, and carrots) provide vitamins A and C and folate as well as iron and magnesium. They are low in saturated and trans fat and high in fiber.

Choose vegetables in a rainbow of colors, especially dark green (e.g., broccoli, spinach, romaine lettuce, bok choy, kale) and orange (e.g., carrots, sweet potatoes, winter squash).

(Review the Sweet Potatoes Nutrition Facts label from page 156 in lesson 10 of the book, and discuss serving sizes and nutrients.)

One serving of vegetables is 1/2 cup of cooked or raw vegetables, 1 cup of raw leafy vegetables, or a small glass of 100% vegetable juice.

Fruits

- **Good source of vitamins A and C and potassium**
- **Low in saturated and trans fat and high in fiber**
- **Whole and sliced fruits have more fiber than juice and are better choices**
- **One serving = 1/2 cup chopped, cooked, or canned fruit; 1 medium apple, banana, or orange; a *small* glass of 100% juice**

Fruits (e.g., oranges, cantaloupe, and strawberries) supply vitamins A and C as well as potassium. They are also low in saturated and trans fat and high in fiber.

Choose whole fruits or sliced fruits rather than fruit juices, since they contain the most fiber; if eating canned fruit, choose fruit canned in juice (rather than fruit canned in syrup).

(Review the Plums Nutrition Facts label from page 156 in lesson 10 of the book, and discuss differences in serving sizes and nutrients.)

One serving of fruit is 1 medium apple, banana, or orange; 1/2 cup chopped, cooked, or canned fruit; or a small glass of 100% fruit juice.

Make sure to limit your consumption of 100% fruit juice to no more than 8 ounces per day; juice has vitamins and minerals, but it is naturally high in fruit sugar (fructose) and it lacks the fiber found in whole fruit.

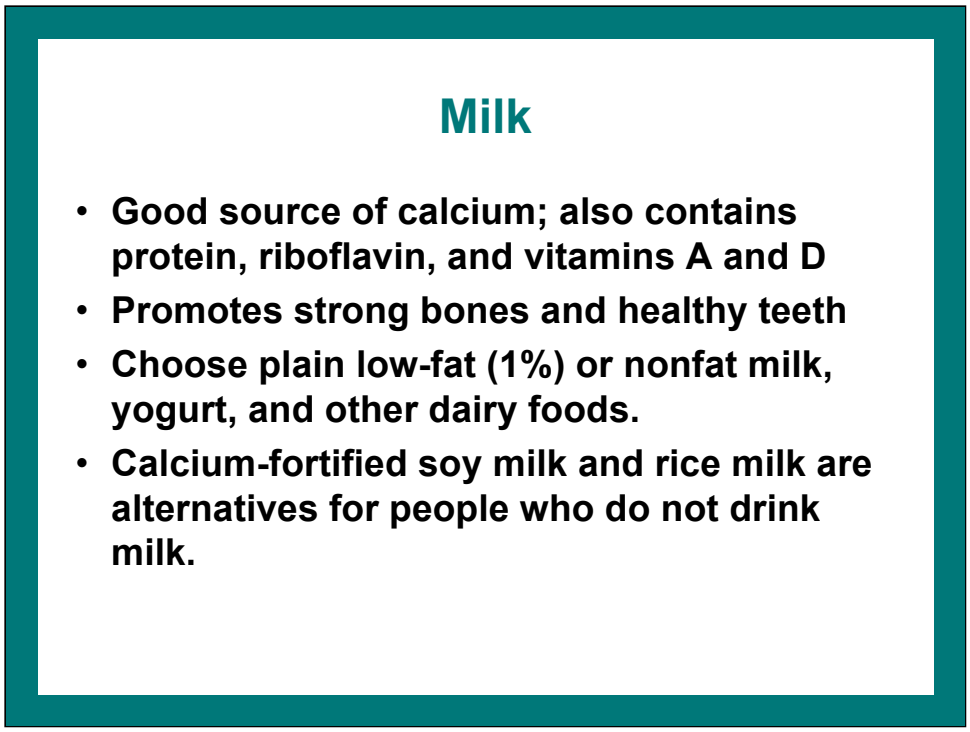
Meat, Fish, and Beans

- **Contain protein, B vitamins, and minerals**
- **Choose dry beans and peas, fish, poultry, nuts, and high-protein vegetarian alternatives more often than meat.**
- **When eating meat, choose lean cuts.**
- **Removing skin from poultry reduces saturated fat.**

Foods in the meat, fish, and beans group supply protein, B vitamins, iron, and zinc. They are primarily responsible for building and repairing muscles and tissues, digesting nutrients, and improving immunity and blood quality.

Choose dry beans and peas, fish, poultry, nuts, and high-protein vegetarian alternatives more often than meat; when eating meat, choose lean cuts; remove the skin from poultry to reduce saturated fat.

(Review the Chicken Nutrition Facts label from page 157 in lesson 10 of the book, and discuss nutrients.)



Dairy products are the best sources of calcium. They supply protein, riboflavin, and vitamins A and D (if fortified). This group helps promote strong bones and healthy teeth.

Choose plain low-fat (1%) or nonfat milk, yogurt, and other dairy foods. People who cannot drink milk can choose lactose-free milk or calcium-fortified plain soy milk or rice milk.

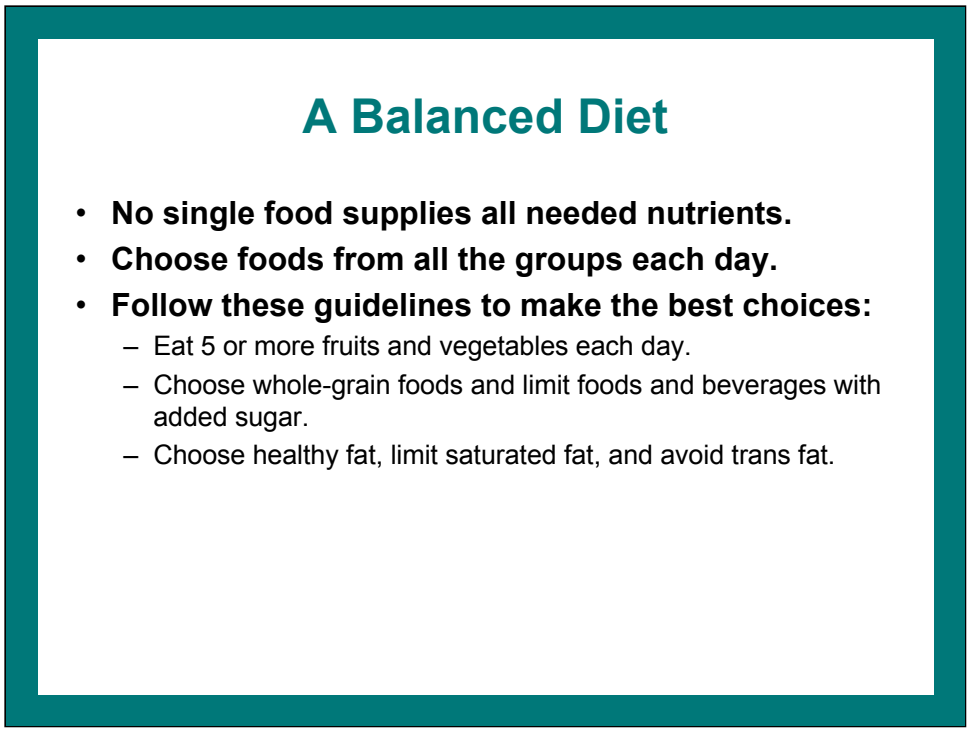
(Review the Skim Milk Nutrition Facts label from page 157 in lesson 10 of the book, and discuss differences in nutrients.)

Combination and Processed Foods

- **Combination foods contain foods from more than one food group.**
- **Processed foods are prepared and packaged by manufacturers.**

Combination foods contain foods from more than one food group (e.g., a brown rice and bean burrito with low-fat cheese: the tortilla and brown rice are in the grains group; the beans are in the meat, fish, and beans group; and the low-fat cheese is in the milk group).

Processed foods are those prepared and packaged by manufacturers. Salt and other sodium-containing ingredients are often used in food processing.



No single food can supply all the nutrients needed to maintain good health. Similarly, not all foods in the same group contain the same nutrients. Oranges, for instance, do not contain much vitamin A, but cantaloupe is a good source of this vitamin.

Choosing foods from all the food groups each day and choosing a variety of foods within each food group will help you meet your nutritional requirements. It will also make your diet more interesting.

To make the best choices within each food group, remember the Balanced Plate for Health and these guidelines from the Principles of Healthy Living:

•Eat 5 or more servings of fruits and vegetables each day (especially eat dark-green and orange vegetables).

•Choose whole-grain foods and limit foods and beverages with added sugar.

•Choose healthy fat, limit saturated fat, and avoid trans fat.

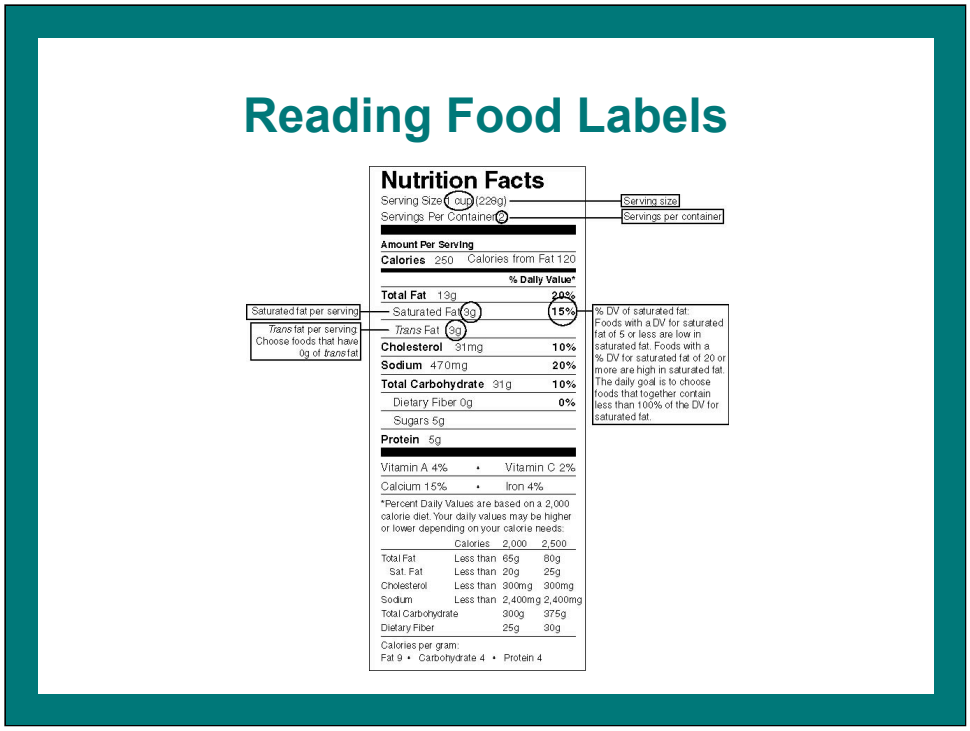
Energy Requirements

- **Adults**
  - Women need 1,800 to 2,000 calories per day.
  - Men need 2,200 to 2,400 calories per day.
  - Adults need more if they are very active.
- **Children**
  - Girls aged 9 to 13 need 1,600 calories per day.
  - Boys aged 9 to 13 need 1,800 calories per day.
  - Children may need 400 calories more each day if they are moderately active.
  - Very active boys and girls may need even more.

When planning a balanced diet, we must also keep in mind the energy requirements for adults and children.

Most women need 1,800 to 2,000 calories per day, and most men need 2,200 to 2,400 calories per day; people need more if they are very active.

Girls aged 9 to 13 need about 1,600 calories per day, while boys aged 9 to 13 need 1,800 calories per day; girls and boys who are moderately physically active may need up to 2,000 calories per day (girls) and 2,200 calories per day (boys), and very active girls and boys (those who do the equivalent of walking more than 3 miles, or 5 kilometers, per day in addition to participating in regular daily activities) may need to consume even more.



The Nutrition Facts food label is printed on nearly all packaged foods. Reading these labels is an effective way to compare the saturated fat, trans fat, fiber, and other nutrient contents of various foods.

The food label uses a daily diet of 2,000 calories as a reference point for the number of calories a person needs each day. But you may require more or less than 2,000 calories, depending on your age, gender, level of physical activity, and intention to maintain, lose, or gain weight.

To calculate the energy needs for an adult, visit www.bcm.edu/cnrc/caloriesneed.htm.

Understanding % Daily Value

- **The % Daily Value (% DV) tells you whether a food is low or high in a nutrient.**
- **Consider saturated fat:**
  - Food with % DV ≤ 5 is *low* in saturated fat.
  - Food with % DV ≥ 20 is *high* in saturated fat.
- **Follow the daily goal for saturated fat:**
  - Choose foods that together have <100% of the DV for saturated fat.
  - It is easier to eat a healthy diet by choosing foods that have ≤ 5% of the DV for saturated fat.

The % Daily Value (% DV) that appears on food labels lets you find out whether a food is high or low in a nutrient.

Regarding saturated fat, if the % DV is 5 or less for an individual food, then the food is considered low in saturated fat. The more foods chosen that have a % DV of 5 or less for saturated fat, the easier it is to eat a healthier diet.

The overall daily goal is to select foods that together have less than 100% of the DV for saturated fat.

The same rule applies to the % DV for sodium.

% Daily Value for Other Nutrients

- **% DV for vitamins, iron, calcium**
  - Food with % DV ≤ 5 is *low* in a nutrient.
  - Food with % DV ≥ 20 is *high* in a nutrient.
- **Daily goal for vitamins, iron, calcium**
  - Choose foods that together reach 100% of the DV for these beneficial nutrients.
  - It is easier to reach 100% DV by choosing foods that are high in these nutrients.

The % DV also indicates whether a food is high or low in other nutrients like vitamins A and C, calcium, and iron.

If the % DV for any of these nutrients is 5 or less, the food is considered low in that nutrient.

The overall daily goal is to select foods that together reach 100% of the DV for these nutrients.

Trans Fat on the Food Label

- **No % DV is listed for trans fat, because it is unclear if there is any safe level.**
- **It is best to avoid trans fat.**
  - Look for "0 grams trans fat" on food label.

    And
  - Check ingredients list for partially hydrogenated oil.
  - Switch to products that do not contain trans fat or partially hydrogenated oil.

There is no % DV for trans fat, because it is unclear if there is any safe level of intake; the consumption of trans fat is strongly associated with increased risk of coronary heart disease, sudden death, and possibly diabetes.

Thus it is best to avoid trans fat from partially hydrogenated oils.

Food labels list the number of grams of trans fat per serving. Products made with partially hydrogenated oils can still claim "0 grams trans fat" if they contain less than 0.5 grams of trans fat per serving. These small amounts of trans fat can add up over the course of the day. So watch out for the words *partially hydrogenated vegetable oil* in the ingredients list.

Switch to an alternative product that does not contain partially hydrogenated oil, especially if it is a product you consume regularly.

Calculating % Daily Value for Saturated Fat

- **Divide the number of grams of saturated fat per serving by 22 and multiply by 100.**
- **Here is an example:**
  - 1 cup of whole milk has 5 grams of saturated fat.
  - (5 ÷ 22) x 100 = 23% DV for saturated fat.

How is % DV for saturated fat calculated?

Although all food labels provide the % DV for nutrients, it is good to know how these values are calculated. The following instructions describe how the % DV for saturated fat is calculated:

For a particular food, divide the number of grams of saturated fat per serving by 22 and multiply by 100. (The number 22 is used because health experts recommend that a person eating a 2,000-calorie daily diet consume no more than 22 grams of saturated fat each day.)

For example, 1 cup of whole milk has 5 grams of saturated fat, and so (5 ÷ 22) x 100 = 23%.

Notice that 5 grams does not sound like much, but for a person who requires 2,000 calories per day, just 1 cup of whole milk contains 23% of the DV for saturated fat.

Adding Up the Saturated Fat

Snack foods	% DV saturated fat
Skim milk	0%
Fruit salad	0%
Macaroni and cheese (2 servings)	36%
Chocolate-frosted doughnut (1)	27%
Small fast-food cheeseburger	28%
Orange juice	0%
Spinach	0%
Peanut and cashew mix (1/4 cup)	9%
Total	100%

We are going to do an exercise focusing on the % DV for saturated fat.

(Pass out photocopied food labels or the Percent Daily Values of Saturated Fat and Grams of Trans Fat for Fast Food chart from pages 86-88 in lesson 5 of the book.)

Locate the calories per serving, the amount of saturated fat grams per serving, and the % DV for saturated fat as listed on the food label. Let's determine which foods when combined add up to 100% of the recommended daily maximum of saturated fat. This is done by adding the % DVs for saturated fat of the foods until the combined % DVs equal 100%. It may take only 2 to 4 foods, depending on their saturated fat content.

(Take suggestions from the participants or allow participants to work together in groups.)

(The example on the slide shows that you can get a day's worth of saturated fat from 2 servings of macaroni and cheese, one chocolate-frosted doughnut, one small fast-food cheeseburger, and 1/4 cup of peanut and cashew mix.)

You can use this approach with each of the nutrients whose % DV appears on food labels. For vitamins and minerals, eat foods totaling to at least 100% of the DV. For saturated fat, eat less than 100% of the DV.

(Distribute the Tour de Health Scorecard from page 423 in lesson 30 of the book, several small slips of paper, and markers to each group. Shuffle the deck of Tour de Health Game Cards from pages 427-435 in lesson 30 of the book, and place it facedown on the top of a table. To speed up the game, cards marked Bonus have been added to the deck. When one of these cards is drawn, a group receives 4 points if it answers the question on the card correctly.)

We will now play a healthy living game that is part of the *Eat Well & Keep Moving* classroom lessons. Let's review the directions and play a round of the game:

Each group gets a scorecard and a marker. I *(the trainer)* will draw one card at a time, in order from the top of the deck, and read the category of the question (e.g., Whole Grains, Keep Moving). I will then read the question to all of the groups. Questions are either multiple choice or true or false. Each group should decide on a response to the question, and write down the answer on a slip of paper. I will ask each group for its response. When a group answers correctly, it will receive 1, 2, 3, or 4 points, depending on the value of the question. Each group enters its points on its scorecard in the related category column. For example, if a group earns 2 points for answering a Keep Moving question, it enters 2 points in the Keep Moving column.

(Winning the game)

(Option one: Play can be timed for 15 or 20 minutes, and the group with the most points at the end wins.)

(Option two: First group to get 20 total points wins.)

(If you like you may offer incentives or prizes (pens, T-shirts, gift certificates, trinkets, or hats) to the winners.)

(After the conclusion of Tour de Health, ask participants if they have any final questions.)

The next *Eat Well & Keep Moving* session will discuss the safe workout.