the five food groups and nutrition facts

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.

1. the five food groups

grains

vegetables

fruits

meat, fish, and beans

milk

(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).

2. the balanced plate for health

(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.

3. 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.

4. 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.

5. vegetables

good source of vitamins a and c, folate, iron, and magnesium

low in saturated and trans fat, high in fiber

choose a rainbow of colors, especially dark green and deep orange

one serving = 1/2 cup cooked vegetables, 1 cup of leafy salad greens, small glass of 100% vegetable juice

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. one serving of vegetables can be 1/2 cup of cooked vegetables, 1 cup of leafy vegetables, or a small glass of 100% vegetable juice.)
6. 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; or a small glass of 100% fruit 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 can be 1/2 cup chopped, cooked, or canned fruit; or a small glass of 100% fruit juice. limit your consumption of 100% fruit juice to no more than 8 ounces per day because it contains a lot of natural sugar [fructose] and lacks the fiber found in whole fruit.)
7. 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.)
8. milk
good source of calcium; also contains protein, riboflavin, and vitamins a and d
promotes strong bones and healthy teeth
choose plain low-fat (1%) or nonfat milk, yogurt, and other dairy foods.
calcium-fortified soy milk and rice milk are alternatives for people who do not drink milk.
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.)
9. 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 preservatives are often added.
10. a balanced diet
no single food supplies all needed nutrients.
choose foods from all the groups each day.
follow these guidelines to make the best choices:
eat 5 or more fruits and vegetables each day.
choose whole-grain foods and limit foods and beverages with added sugar.
choose healthy fat, limit saturated fat, and avoid trans fat.
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.
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.
11. 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.
12. reading food labels
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.
13. 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.
14. % 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.
15. 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.
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 heart disease. 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.
16. 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.