



**Individualized Situation-based
Nutrition Counseling**

Basic Nutrition

■ Basic Nutrition Lesson

This **Basic Nutrition Lesson** seeks to give the participant fundamental nutrition knowledge that she can build upon in future lessons.

Objectives

By the end of this lesson, the participant will be able to:

- Determine her food intake recommendations and differentiate between essential calories and empty calories.
- Identify calorie-dense foods and non-calorie-dense foods and be able to balance these foods within daily calorie requirements.
- Explain the difference between portion size and serving size and use everyday objects as a reference when determining appropriate portion sizes.
- Identify serving size, calories per serving, servings per container, nutrients to limit, and nutrients to increase; know the significance of the 5/20 rule.
- Identify two benefits of eating breakfasts and snacks that include at least two food groups.

Time for this Lesson: 30-60 minutes

Activities in this Lesson

- Introduction to MyPlate (5-10 minutes)
- Calories: A Balancing Act (5-10 minutes)
- Portion Size (5-10 minutes)
- Food Labels (5-10 minutes)
- Basic Nutrition (5-10 minutes)
- Review (7 minutes)

Preparation and Handouts Needed

Preparation

- Print and prepare handouts as indicated below.
- Print photos of the following 200-calorie food portions. They are available from <http://www.wisegeek.com/what-does-200-calories-look-like.htm>; click on the thumbnails for full-sized pictures. Laminate if desired.
- Sliced, smoked turkey
- Hot dogs
- Apple slices
- Chocolate kisses
- Potato chips
- Puffed rice cereal
- Find actual, portion-sized objects, such as a ping pong ball, golf ball, tennis ball, deck of cards, four dice, hockey puck, or CD
- Craft pompoms, small bag
- Color modeling clay
- 1-cup volume measuring cup
- 9-inch paper plate
- Two 11-inch paper plates
- Food models (2-3 oz, low fat meat, ½ cup cooked vegetables, 1 oz. equivalent grain food, 1 medium fruit)

Handouts

- **What's on Your Plate?** (Print the two pages double-sided)
- **Choose MyPlate: 10 Tips to a Great Plate**
- **MyPlate Food Intake Patterns** (Print double-sided with the Nutrition Facts Label.)
- **Fake Money** (Print the handout and cut out individual \$100 InSNC Bucks.)
- **Nutrition Facts Label** (Print double-sided with MyPlate Food Intake Patterns.)
- **Visualizing Portion Size with Common Objects** (Print the two pages double-sided)
- **Rate the Full Plate** (Print the two pages double-sided.)
- **Portion Sizes: Meals Matter Worksheet** (Print double-sided with I Revised My Plate! Worksheet.)

- **I Revised MyPlate! Worksheet** (Print double-sided with Portion Sizes: Meals Matter Worksheet.)
- **Food Label Basics** (Print all three pages.)

Activities

1. Introduction to MyPlate (5-10 minutes)

Displaying **What's on Your Plate?** to the participant, review the MyPlate principles on the front of the handout and explain how she can take action to follow them. Discuss the importance of proportionality in food choices – shown by the different sized “pie” pieces that make up MyPlate.

Where to make changes to follow MyPlate principles:

- Balance calories: Enjoy your food, but eat less and avoid oversized portions.
- Foods to increase: Make half your plate fruits and vegetables; make at least half your grains whole grains; switch to fat-free or low-fat (1%) milk.
- Foods to reduce: Compare sodium in foods like soup, bread, and frozen meals – and choose the foods with lower numbers; drink water instead of sugary drinks.

Next, turn to the back of **What's on Your Plate?** and discuss suggested servings and other healthy recommendations for each food group. Sodium and empty calories from solid fats and added sugar are discussed on the right side of the back page. Also mention that the recommendations on **What's on Your Plate?** are based on eating 2,000 calories a day and that the participant's daily food intake may differ from this.

When discussing actions the participant might take to make wiser food choices, the facilitator may choose to elaborate on the points made in **What's on Your Plate?**, as well as in **Choose MyPlate: 10 Tips to a Great Plate**.

Now, using **MyPlate Food Intake Patterns**, have the participant determine her customized food intake recommendations based on her age and activity level. Refer the participant to www.chooseMyPlate.gov to further individualize her recommendations based on height and weight, as well as age (which affects metabolic rate) and activity level.

Finally, discuss the differences between essential calories and empty (discretionary) calories from solid fats and added sugars, again using **MyPlate Food Intake Patterns**.

2. Calories: A Balancing Act (5-10 minutes)

First discuss the basic definitions of calorie/energy balance. A *calorie* is simply the unit used to measure the amount of energy supplied by food. If the number of calories you eat equals the number of calories you burn through physical activity and body processes, such as breathing, you are in energy balance, and your weight will remain the same. Remember:

1. Eating more calories than your body needs causes your body to store them in the event that you need them later and results in weight gain.
2. Eating fewer calories than your body needs for fuel and/or increasing the calories you burn through exercise will cause you to lose weight.

Explain that the number of calories your body requires each day depends on your age (which affects metabolic rate), height, weight, and activity level.

Questions to Guide Discussion

- How many calories make up 1 pound of fat? (Answer: 1 pound of fat contains 3,500 calories of stored energy.)
- Why do people need fewer calories as they age? (Answer: Metabolic rate decreases with age and as individuals become less physically active.)

Next, discuss caloric density using the photos you printed of foods containing 200 calories; use the following prompts.

1. Show the photo of sliced smoked turkey and say, "How many hot dogs do you think contain 200 calories compared with the plate of smoked turkey? Which choice would give you more food?"
 - Answer: Show the photo of hot dogs and note that a little more than one hot dog (66 grams) equals 200 calories, while 204 grams of smoked turkey equals 200 calories. This is because regular hot dogs contain more fat and are more calorically dense than smoked turkey.
2. Show the photo of apple slices and say, "How many chocolate kisses could you eat for the same amount of calories from apples?"
 - Answer: Show the plate of kisses, noting that eight small kisses have the same number of calories as about three apples because apples contain more water and are thus less calorically dense.
3. Show the photos of potato chips and of puffed rice cereal. Say, "Why do you think you can eat more of the cereal for the same number of calories in this small pile of chips?"
 - Answer: Explain that because puffed rice has more air and less fat, it is less calorically-dense than potato chips.

Question to Guide Discussion

- Does anything surprise you?

Based on the examples previously given, discuss the meaning of the terms "calorie-dense" and "non-calorie dense" (provided below). Then ask the participant to name some other examples of calorie-dense and non-calorie dense foods.

Calorie-dense, or calorie-packed, foods contain a large number of calories relative to the portion size; they pack a lot of calories in a bite. Examples of calorie-dense foods include cookies, cakes, doughnuts, chips, pretzels, and fried foods.

Non-calorie dense foods contain more water, fiber, and air, but less fat per portion size. Examples of non-calorie dense foods include fruit, vegetables, broth soups, lean proteins (such as fish and chicken), and whole grains.

Mention to the participant that fat intake alone does not make someone fat, but fat has the greatest calorie content of the macronutrients (protein, carbohydrates, and fat) and thus it can add up quickly.

If the participant is interested, describe the concept of macronutrient calories per gram.

Finally, reiterate the importance of energy balance and tell the participant about the process of balancing calories, just as one would balance a budget.

Questions to Guide Discussion

- Have you ever created a budget for you or your family?
- What happens if you spend too much money in one area of your budget?

Using the InSNC Bucks you printed off the **Fake Money** handout, demonstrate the following scenario, with a \$100 bill equaling 100 calories. Explain that the scenario is based on the need to consume 2,000 calories a day to maintain weight, noting that the participant's actual need may be different.

Next, lay out InSNC Bucks to equal:

- 400 calories for breakfast,
- 200 calories for a mid-morning snack,
- 600 calories for lunch,
- 600 calories for dinner, and
- 200 calories for an evening snack.

Now, ask the participant to name her favorite calorie-dense food. Note that if she goes on a calorie "shopping spree" and overspends her calorie budget by eating too much of her favorite calorie-dense food, she will have to cut back calories at a later meal or snack to stay within her budget.

Mention to the participant that calorie counting is not always necessary, but having a general idea of the calorie content of foods and her own calorie needs is the first step to maintaining a healthy weight.

If the participant is curious about the calorie content of foods in her diet, direct her to: www.calorieking.com/foods.

Before beginning the next section, answer all questions the participant may have regarding calories.

3. Portion Size (5-10 minutes)

*Note: For this section, complete the **Nutrition Facts Label** and the **Visualizing Portion Size with Common Objects** activities first, then additional activities as time allows.*

Portion Size versus Serving Size

First discuss the difference between a portion size and a serving size. Ask the participant how she would define portion size and serving size. Commend the participant if she gives the right definitions, or correct her, if necessary, based on the following definitions:

Portion size is the amount of food that one chooses to eat. There is no single right or wrong portion size, but portions can be bigger or smaller than recommended food serving sizes. Serving size is the standard amount of food, such as cups, grams, ounces, and other units, that appears on the Nutrition Facts label on most packaged foods.

Have the participant check “Serving Size” and “Servings per Container,” using the **Nutrition Facts Label** handout. Remind her that many packaged foods contain more than one serving and that eating a larger portion size than the serving size listed on the package could double or triple the calories, nutrients, and fat consumed.

Questions to Guide Discussion

- If you consumed the entire box of macaroni and cheese, how many servings would you be eating? (Answer key: 2 cups = 2 servings)
- Assuming you ate the entire box, how many calories would you have eaten? Grams of fat? Milligrams of sodium? (Answers: 500 calories, 24 grams fat, 9,400 milligrams sodium)
- How does consuming the entire box of macaroni and cheese affect the daily values?

Now, discuss the use of everyday objects to estimate portion size rather than using measuring utensils.

Get out the portion-size objects you brought, and set them in front of the participant. Then, randomly read off a food item from the list of foods below and have her guess which object is closest to the portion size. At the conclusion of the discussion, give the participant the **Visualizing Portion Size with Common Objects** handout.

Note: If time is short, just review the information below instead of having the participant guess the portion size.

Objects	Food
Ping pong ball	2 tbsp. peanut butter 2 tbsp. salad dressing
Golf ball	¼ c. dried fruit or nuts
Four dice	1 ½ -2 oz. cheese
Deck of cards	3 oz. meat of poultry
Tennis ball	1 medium piece of fruit ½ c. pasta ½ c. ice cream
Hockey puck	1 small bagel
CD	1 pancake or slice of bread

Rate the Full Plate

Next, have the participant compare and contrast the food in the photo of the two plates in the **Rate the Full Plate**² handout. Note that the photo is oriented so the plate with larger portions of gravy, stuffing and mashed potatoes is on the bottom of the photo. Discuss the differences and the similarities in the plates.

Differences:

- Larger amounts of gravy, stuffing, potatoes, turkey skin, salad dressing, and cranberry sauce, i.e., the foods that are higher in fat, sugar and calories, are on the plate on the bottom.
- Larger amounts of green beans and tossed salad, i.e., the foods that are lower in fat, sugar and calories, are on the plate on the top.

Similarities:

- Both plates have the same kinds of foods, but the amounts differ.

Questions to Guide Discussion

- Which plate has more calories?
- What is the calorie difference between the two plates?

Using the flip side of **Rate the Full Plate**, have the participant compare her estimate of the calorie difference to the actual calorie difference between the plates pictured on the front. Ask if she has any comments. Point out to the participant that this principle of portion control can apply to any other meal or food combination. (For example, 1/8th of an apple pie and 3/4 cups of ice cream have more calories than 1/16th of an apple pie and 1/2 cup of ice cream.)

Noting the chart, ask the participant which plate she would prefer to eat—the "Top Plate" or the "Bottom Plate." Then tell her the benefits of eating a plate like that on the top:

<p>Eat a full plate</p> <p>Eat foods you like</p> <p>Satisfied, but not overly full after the meal</p>	}	<p>Enjoy the foods you like but not feel guilty about eating them afterwards.</p>
--	---	---

Give the participant the **Visualizing Portion Size with Common Objects** handout. Ask her to study the handout at home.

Portion Sizes at Meals

Ask the participant to recall what she had for dinner the previous night (or a meal that she commonly eats). Have the participant reconstruct the meal on one of the 11-inch paper plates, using the colored craft pompoms (for pasta, rice, salads, vegetables, mixed dishes, etc.) and the color modeling clay (for meat, potatoes, rolls, cheese, dessert, etc.).

Then, ask the participant to compare the amounts of each food on her plate to the food models. On the **Portion Sizes: Meals Matter Worksheet**, have the participant record whether her portions are larger or smaller compared with the food models. Discuss the results.

Using the **I Revised MyPlate! Worksheet** handout, ask the participant to think about revising the meal she just reconstructed so it's healthier and in line with MyPlate recommendations. Then ask her to draw her revised "MyPlate" on the handout.

Healthy Plate

Ask the participant about the diameter and shape of the plates she uses for meals at home. If possible, have the participant measure the diameter before the lesson.

Facts about plate size and portions:

- Since 1900, the diameter of dinner plates has increased significantly from 9.6 inches to 11.8 inches (about 23 percent).³
- Square plates have more area than round plates.
- According to research, we eat 92 percent (or most) of what we put on our plate, regardless of its size. So, by switching from a 12-inch plate to a 10-inch plate, people would eat approximately 22 percent fewer calories.⁴

Using the 1 cup measuring cup, have the participant scoop one cup of pompoms onto the 9-inch paper plate and one cup onto the second 11-inch paper plate.

Question to Guide Discussion

- Would you feel as satisfied with the portion on the smaller plate?

Studies have shown that people feel just as satisfied with smaller portions and fewer calories that fill a small plate, as they do with bigger portions and more calories that fill a big plate.

Questions to Guide Discussion

- How might you utilize this realization? (Answers: Use another set of dishes that has smaller plates, or round plates if your regular plates are square. Use a large salad plate for meals. Choose smaller plates when at parties or buffets.)

4. Food Labels (5-10 minutes)

Looking at the Nutrition Facts panel on the first page of **Food Label Basics**, have the participant point out the serving size, number of servings per container, and calories per serving.

Questions to Guide Discussion

- Is the serving size on your Nutrition Facts label the amount you would usually eat as one portion?
- What if you consumed the entire box?

Re-emphasize to the participant that the portion she eats may not be the same as the serving size listed on the Nutrition Facts label. Refer to the second and last pages of **Food Label Basics** when discussing this.

General Guide to Sizing up Calories on the Nutrition Facts Label⁵:

Approximately 40 calories is low. Approximately 100 calories is moderate. Approximately 400 calories or more is high.

Remind the participant to *always* consider calories in terms of how much she actually expects to eat or drink.

Next, point out and discuss the nutrients listed on the Nutrition Facts label, including:

- Total fat, including saturated fat and trans fat
- Cholesterol
- Sodium
- Total carbohydrate, including dietary fiber and sugars
- Protein
- Vitamins A and C
- Calcium
- Iron

Based on time available and the participant's interest level, review the following information about fat and carbohydrates, including dietary fiber.

Discuss the information on the Nutrition Facts label in greater depth.

Total fat includes:

- Saturated fat – This is the type of fat that is solid at room temperature; eating too much saturated fat may increase the risk of heart disease.⁶ Saturated fats are found mostly in foods from animals and some plants.⁷
- Trans fat – Trans fat is made through the process of hydrogenation, which occurs when liquid vegetable oil is processed to become solid.⁶ Just like saturated fats, trans fats increase levels of LDL ('bad') cholesterol and increase the risk of heart disease.⁷ If the ingredients list includes partially hydrogenated oils, then the product is likely to contain trans fatty acids, even if the Nutrition Facts label does not list any trans fats.⁷ Limiting consumption of many processed foods is a good way to reduce intake of synthetic trans fat.⁶
- Polyunsaturated and Monounsaturated fat – The Nutrition Facts label may also list these fats; however, manufacturers are not required to do so. Omega-3 and Omega-6 fatty acids are polyunsaturated. They are considered essential fatty acids because the body cannot produce them.⁷ Monounsaturated and polyunsaturated fats can decrease the risk of heart disease by reducing levels of LDL cholesterol in our blood.⁷ All fats should be used in moderation because they are calorie-dense.

Total carbohydrate includes:

- Fiber and sugar and is measured in grams. Your best carbohydrate-containing foods are nutrient-packed foods in several of the basic food groups, including fruits, vegetables, grains, milk and milk products. You should limit some carbohydrates, especially those with added sugars – such as cakes, cookies, and doughnuts.⁸

Dietary fiber

- Dietary fiber is the non-digestible form of carbohydrates. Dietary fiber naturally occurs in plants, helps provide a feeling of fullness, and is important in promoting healthy laxation.⁷ Dietary fiber that occurs naturally in foods may help reduce the risk of cardiovascular disease, obesity, and type 2 diabetes.⁷ Foods with at least 5 grams of fiber are considered “high fiber” foods.⁸

Using the first page of **Food Label Basics**, have the participant point out the total fat, cholesterol, and sodium per serving on the label. Indicate that she should limit these nutrients. On the third page of **Food Label Basics**, point out the nutrients she should focus on to meet recommendations. Emphasize that most women *do not get enough* calcium or fiber in their diet.⁷

Percent Daily Values (%DVs)

The % Daily Values (%DVs)⁵ is based on the Food and Drug Administration's Daily Value recommendations for key nutrients for a 2,000 calorie daily diet. You can use the %DV as a frame of reference whether or not you consume more or less than 2,000 calories daily. The %DV helps you determine if a serving of food is high or low in a nutrient.

5/20 Rule

Using the first page of **Food Label Basics**, have the participant look at the %DV and find nutrients that the foods may be high or low in according to the 5/20 Rule – 5% DV or less is low and 20% DV or more is high.

5. Basic Nutrition (5-10 minutes)

Review this section based on the participant's needs. Do not cover this section if time is limited, or the participant does not require this information at this time. If the participant experiences the Comforting Interludes need state, this information will be covered in that unit.

Breakfast

Have the participant brainstorm ideas about the benefits of eating breakfast. Below are some suggestions:

- Breakfast can add fiber, whole grains and nutrients to your diet. Studies indicate that breakfast consumers tend to have higher fiber intakes than breakfast-skippers.⁹ Breakfast eaters consume more thiamin, riboflavin, folate, calcium, iron, and magnesium than do breakfast-skippers.⁹
- Breakfast may help lower cholesterol. Many breakfast foods are whole grain and a good source of fiber, which can help lower cholesterol.¹⁰
- Breakfast may help to control weight. Many studies have shown that eating breakfast is associated with a lower body mass index (BMI)¹¹ and with successfully maintaining weight loss.¹²

Questions to Guide Discussion

- How do you feel when you skip breakfast? What are the consequences? (Suggested answers: Headaches, feeling sleepy, decreased concentration, irritable, eat more later to “catch up,” grab sugared snacks and beverages to stop the hunger and overeat later in the day)
- What are some barriers to eating a healthy breakfast? (Suggested answers: Lack of time; lack of convenient breakfast foods or beverages that can be eaten on the run; not hungry in the morning; family doesn't eat breakfast)

Snacks

Ask the participant to consider the benefits of eating healthy snacks.

Question to Guide Discussion

- What kinds of foods do you choose for snacks and why?

Give the participant some examples of snacks that include foods from two food groups, such as fruit and yogurt, cheese or peanut butter with whole grain crackers, a sandwich, apples with peanut butter, or carrots and low-fat cheese. Then, using **What's on Your Plate?**, have the participant identify other snacks that incorporate at least two food groups.

6. Review (7 minutes)

- Ask the participant if she has any questions.
- Have the participant discuss one or two things she learned today.
- Schedule the date and time for the next lesson.
- Briefly describe the topic and activities for the next lesson, if applicable, to arouse interest.
- If the participant will be continuing lessons with the facilitator, the facilitator should consult the **Need State Activities Overview** to determine the next lesson's topics and activities.
- Thank the participant for coming.

Additional Information for the Facilitator

This section is intended to provide additional information to the facilitator to help address questions outside the basic **Nutrition Basics Lesson**. This information is not meant to be copied or shared with participants. Much of the information below is from the "Dietary Guidelines for Americans 2010," as well as the MyPlate website and other United States Department of Agriculture (USDA) sources. (A complete copy of the dietary guidelines can be found at <http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/PolicyDoc/PolicyDoc.pdf>.)

Fats

Functions of fat in the body

- Fat carries fat-soluble vitamins A, D, E and K.⁷

Types of fat

1. **Saturated fats** are "saturated" with hydrogen atoms. They are found mostly in foods from animals, including meat, dairy, and eggs, as well as some plants.⁷ These fats are usually solid at room temperature.⁷
 - Examples of foods high in saturated fats include butter, stick margarine, coconut oil, palm oil, palm kernel oil, beef fat, pork fat (lard), chicken fat, and shortening.⁷
 - The top foods contributing to saturated fat intake of Americans are full-fat cheese, pizza, grain-based desserts, dairy-based desserts, chicken dishes, sausage, frankfurters (hot dogs), bacon, and ribs.⁷
 - Saturated fats can increase the risk of heart disease by increasing levels of low-density lipoprotein (LDL), or "bad" cholesterol, in the blood.⁷
2. **Trans fats** are formed when liquid vegetable oil is made into solid fat through a process called hydrogenation.⁷
 - The majority of trans fats are found in processed plant-based oils, as well as other processed foods, although a small amount of trans fat is also found naturally in meat and dairy products.⁷
 - Examples of foods high in trans fats include stick margarine, snack foods, and prepared desserts, or processed foods made with partially hydrogenated oils.⁷
 - Trans fats, like saturated fats, increase levels of LDL cholesterol and the risk of heart disease.⁷
3. **Unsaturated fats** are not saturated with hydrogen atoms. They are derived from plant and some animal sources,⁷ especially fish. They are liquid at room temperature.⁷
4. **Monounsaturated fats** are found in canola oil, safflower oil, peanut oil, and olive oil.⁷

- Monounsaturated fats can reduce the risk of heart disease by decreasing levels of LDL cholesterol in the blood.⁷
- 5. **Polyunsaturated fats** are found in sunflower oil, corn oil, and soybean oil.⁷
 - Polyunsaturated fats may reduce the risk of heart disease by decreasing levels of LDL cholesterol in the blood.⁷
- 6. **Omega-3 fatty acids** are a type of polyunsaturated fat found in fatty fish and some plant foods like flax.⁷
 - Evidence suggests consumption of two servings of fish per week (approximately 8 ounces total) may reduce the risk of heart disease.⁷
 - Examples of fish high in Omega-3 fatty acids include salmon, anchovies, herring, sardines, Pacific oysters, trout, and Atlantic and Pacific mackerel.⁷

Some types of fish that are high in Omega-3 fatty acids are also prone to carry high levels of methylmercury, a metal that can harm unborn and young children's developing nervous systems if regularly ingested. Although methylmercury is not a concern for most people, pregnant women and nursing mothers should avoid eating swordfish, tilefish, king mackerel, and shark because of the risk of methylmercury poisoning.⁷

A word about cholesterol

Cholesterol can be consumed in food, but intake is not necessary because the body can make more than enough. Cholesterol plays both structural and functional roles in the body. However, high levels of cholesterol in the blood is one of the risk factors for heart disease.⁷

Cholesterol is carried in blood by special carriers called lipoproteins.¹³

- Low density lipoprotein (LDL) carries cholesterol in the blood from the liver to other cells in the body.¹³ Cholesterol is necessary for the formation of healthy cell membranes in addition to other essential functions.¹³ Plaque forms as a result of injury to artery walls.¹⁴ Elevated levels of LDL cholesterol in the blood are problematic because they will cause larger-than-normal plaque build-up. This plaque will continue to grow until it ruptures, when it has the potential to block blood flow to the heart – resulting in a heart attack or stroke.¹⁴ LDL cholesterol is sometimes known as “bad” cholesterol.
- High density lipoprotein (HDL) carries cholesterol from other parts of the body back to the liver for excretion. HDL cholesterol is sometimes called “good” cholesterol.¹⁴

To decrease your blood cholesterol, you should reduce the amount of saturated fat, trans fat and cholesterol in your diet. Remember that only animal-based foods contain cholesterol, such as meat; poultry; fish, including shellfish; egg yolk; and whole milk dairy products.⁷

Fat and Disease

Diets high in fat may increase the risk of cardiovascular disease, cancer, and diabetes. Here are some facts about these three diseases.

Cardiovascular disease

- Cardiovascular disease affects 37 percent of Americans.⁷
- Eating a diet low in saturated fat may help lower cholesterol and the risk of cardiovascular disease.⁷

Cancer

- Dietary factors are associated with risk of some types of cancer, including breast (post-menopausal), endometrial, colon, kidney, mouth, pharynx, larynx, and esophagus.⁷

Diabetes

- Nearly 11 percent of the U.S. population has type 2 diabetes, the onset of which is greatly affected by diet and exercise.⁷

How much fat is needed?

- For optimum health, total fat intake should stay between 20-35 percent of total daily calories.⁷ Recommendations for the maximum amount of fat that should be consumed daily varies for women by age; the chart below offers recommendations for women ages 40-60.

Age	40-50 yr	51-60 yr
Calories ^{*7}	1,600	1,800
Total Fat [†]	320-560 kcal (35-62 g)	360-630 kcal (40-70 g)
Oils ¹⁵	5 tsp	5 tsp
Empty Calories ^{‡7}	161 g	121 g

* Assumes individuals get less than 30 minutes of activity per day.
 † Includes added fat – fat that is not naturally part of the food (as in meat or dairy), and fat added as an ingredient in a recipe.
 ‡ Empty calories include those that come from both solid fats *and* added sugars.

Choose fat-free or low-fat milk and dairy products, fish, lean meats and poultry, eggs, beans and peas, and nuts and seeds, while limiting foods that are high in saturated fats and trans fats.⁷

Consume less than 10 percent of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids.⁷

Consume less than 300 milligrams of dietary cholesterol daily.⁷

Reduce the intake of calories from solid fats.⁷

How are oils different from solid fats?¹⁶

All fats and oils are a mixture of saturated fatty acids and unsaturated fatty acids.

Solid fats contain more saturated fats and/or trans fats than oils.

Oils contain more monounsaturated and polyunsaturated fats.

Saturated fats, trans fats, and cholesterol tend to raise LDL (“bad”) cholesterol levels in the blood, which in turn increases the risk for heart disease.

How to reduce fat intake

Trim fat from meat.⁷

When using spreads, choose soft margarines with zero trans fats made from liquid vegetable oil, rather than stick margarine or butter. If you do use butter, use only a small amount.⁷

When cooking, use vegetable oils, such as olive, canola, corn, safflower, or sunflower, rather than solid fats – such as butter, stick margarine, shortening, or lard.⁷

On food packages, read the ingredients list to choose foods that contain oils with more unsaturated fats. Read the Nutrition Facts label to choose foods that contain little or no saturated fat and no trans fat.⁷

Choose baked, steamed, or broiled rather than fried foods most often.⁷

Limit foods containing partially hydrogenated oils, a major source of trans fats.⁷

Fat substitutes

For a brief, but thorough overview of fat substitutes, see the *Journal of the American Dietetic Association* position statement. The precise citation is:

Jonnalagadda, S.S., & Jones, J.M.. (2005). Position of the American Dietetic Association: Fat replacers. *Journal of the American Dietetic Association*, 105(2), 266-275.

This position paper is available online at <http://www-nmcphc.med.navy.mil/downloads/healthyliv/nutrition/fatreplacers.pdf>.

Sugar

Sugar and health

- Both naturally occurring sugars and added sugars increase the risk of dental caries.

Natural versus added sugar⁷

Sugar is a simple carbohydrate composed of one unit (a monosaccharide, such as glucose or fructose) or two joined units (a disaccharide, such as lactose or sucrose).

- Natural sugars are innately present in some foods, such as the sugar found in fruit or milk.
- Added sugars are refined sugars, syrups, and other caloric sweeteners that are added to foods during processing, or preparation, including adding sugar to coffee or sprinkling it on cereal.

Examples of Added Sugars That Can Be Listed as Ingredients ⁷		
Anhydrous dextrose	High-fructose corn syrup	Molasses
Brown sugar	Honey	Nectars (e.g., peach, pear)
Confectioner's powdered sugar	Invert sugar	Pancake syrup
Corn syrup	Lactose	Raw sugar
Corn syrup solids	Malt syrup	Sucrose
Dextrin	Maltose	Sugar
Fructose	Maple syrup	White granulated sugar
Other added sugars may be listed as ingredients, although they are not recognized by FDA as ingredient names. These include cane juice, evaporated corn sweetener, fruit juice concentrate, crystal dextrose, glucose, liquid fructose, sugar cane juice, and fruit nectar.		

Top sources of added sugar in the diets of the U.S. population

- Soda, energy drinks, sports drinks
- Grain-based desserts, such as cakes and cookies
- Fruit drinks
- Dairy desserts
- Candy

Ways to reduce sugar consumption

Experiment with reducing the amount of sugar in recipes. In some recipes, you can cut the sugar by 1/3 without affecting the quality of the product.

Compare sugar content of foods from different brands and choose the food with the lowest sugar content.

Choose naturally occurring carbohydrates, such as those found in whole grains, beans and peas, vegetables, and fruits – especially those high in dietary fiber – instead of refined grains and foods with added sugars.⁷

Replacing added sugars with non-caloric sweeteners may reduce calorie intake in the short-term, yet questions remain about their effectiveness as a long-term weight management strategy.⁷

Sodium

Sodium allowance

The Institute of Medicine says 2,300 milligrams of sodium a day is the highest amount of sodium that the average adult can consume daily without adverse health effects.⁷ To put that in perspective, one teaspoon of salt contains about 2,300 milligrams of sodium.¹⁷

The USDA's 2010 dietary guidelines further recommend that individuals who are over 50, are African American, or who have hypertension, diabetes, or chronic kidney disease consume less than 1,500 milligrams of sodium per day as these groups tend to be more sensitive to higher sodium intake.⁷ These groups have a greater than average likelihood of developing high blood pressure if they consume too much sodium.

Sodium facts

Sodium is an essential nutrient, but the body requires relatively small quantities – except when exercising and sweating.⁷

Salt added at the table and in cooking provides only a small proportion of the total sodium that Americans consume. Most sodium comes from salt added during food processing.⁷

Low sodium foods

A food that has 140 milligrams or less of sodium per serving can be labeled low-sodium.¹⁸

Sodium and health

Evidence is strong that as sodium intake decreases in adults, so does blood pressure.⁷

Keeping blood pressure in the normal range reduces an individual's risk of cardiovascular disease, congestive heart failure, and kidney disease.⁷

Dietary potassium, found in fruits, vegetables, milk and milk products, can lower blood pressure by blunting the adverse effects of sodium on blood pressure.⁷

Ways to reduce sodium in your diet

Taste foods before adding table salt. The food may not need as much salt as you think.

Don't add salt when cooking. Keep salt off the kitchen counter *and* the dinner table. Use spices, herbs, garlic, vinegar, or lemon juice to season foods or use no-salt seasoning mixes. Try black or red pepper, basil, curry, ginger, or rosemary instead.¹⁷

Restaurants may prepare lower sodium foods at your request and will serve sauces and salad dressings with sodium on the side so you can eat less of them.¹⁷

Read the Nutrition Facts label and the ingredients statement on food products to find packaged and canned foods lower in sodium. Look for foods labeled “low sodium,” “reduced sodium,” or “no salt added.”

Daily Values – Additional Information⁵

Experts have not established a %DV for trans fats and sugars, but recommend limiting consumption of both.

The %DVs are based on a 2,000-calorie diet. Each listed nutrient is based on 100% of the recommended amounts for that nutrient. For example, 18% for total fat means that one serving furnishes 18% of the total amount of fat that you could eat in a day and stay within public health recommendations. Use this quick guide to %DV: 5%DV or less is low and 20%DV or more is high.

Three ways to use %DVs

Comparisons: The %DV makes it easy for you to make comparisons. You can compare one product or brand to a similar product. Just make sure the serving sizes are similar. It's easy to see which foods are higher or lower in nutrients because the serving sizes are generally consistent for similar types of food, except in a few cases like cereals.

Nutrient content claims: Use the %DV to help you quickly compare one claim to another, such as "reduced fat" versus "light" or "non-fat." Just compare the %DVs for total fat in each food product to see which one is higher or lower in that nutrient – there is no need to memorize definitions.

Dietary trade-offs: You can use the %DV to help you make dietary trade-offs with other foods throughout the day. You don't have to give up a favorite food to eat a healthy diet. When a food you like is high in fat, balance it with foods that are low in fat at other times of the day.

Label Reading – Deciphering Nutrient Content Claims

Following is a guide from the Food and Drug Administration to some common language on food product packages.¹⁸

Free

- “Calorie-free” means less than 5 calories per serving.
- “Fat-free” means less than 0.5 grams of fat per serving and no added fats or oils.

- “Sodium-free” means less than 5 milligrams of sodium per serving.

Low

- “Low calorie” means 40 calories or less per serving.
- “Low fat” means 3 grams or less fat per serving.
- “Low sodium” means less than 140 milligrams of sodium per serving.
- “Low cholesterol” means less than 20 milligrams of cholesterol per serving.

Reduced/Less

- “Reduced/less calories” means at least 25% fewer calories per serving than the usual product.
- “Reduced/less fat” means at least 25% less fat per serving than the usual product.
- “Reduced/less” sodium means at least 25% less sodium per serving than the usual product.

Light/Lite

- “Light/lite” calories means at least 1/3 fewer calories than the usual product.
- “Light/lite fat” means at least 50% less fat than the usual product.
- “Light/lite sodium” means at least 50% less sodium than the usual product.

Portion Distortion

When Coca-Cola was first introduced in the 1890’s, each bottle contained 6.5 ounces. Today, 26-ounce bottles are the norm – four times larger than the original product.¹⁹ When McDonald’s first opened in 1955, only one size of fries was offered. This size is the same as today’s small.²⁰

According to a study by Young and Nestle, commercially available foods are often sold in portions larger than the recommended serving size.²¹ Researchers also determined that many foods are now sold in larger portions compared to when they were first introduced. Given that portion sizes have gradually increased and that most portions are larger than the recommended serving size, it can be difficult for consumers to determine the true amount that they should be consuming.²¹

Multiple studies have looked at the effects of portion size and calorie consumption. Wansink and Kim determined that larger portion sizes promoted increased consumption.²² Rolls, et al., determined that after eating a large snack, individuals tend not to compensate by eating less food at the next meal.²³

Sources Cited

1. United States Department of Agriculture. (n.d.). *Selected messages for consumers*. Retrieved from <http://www.choosemyplate.gov/print-materials-ordering/selected-messages.html>
2. Department of Family and Consumer Sciences, University of Wyoming Cooperative Extension Service. (n.d.). *Rate a full plate lesson plan*. Retrieved from http://www.uwyo.edu/winwyoming/Small_Victories/FullPlate/full_plate_lesson.html
3. Ittersum, K., & Wansink, B. (2011, November 11). Plate size and color suggestibility: the Delbeuf Illusion's bias on serving and eating behavior. *Journal of Consumer Research*. Retrieved from <http://www.jstor.org/stable/10.1086/662615>.
4. Wansink, B., & Roizen, M. (n.d.). *Mindless dieting: newsletter #1 of a series*. Ithaca, NY: Cornell University. Retrieved from http://mindlesseating.org/pdf/Mindless_Dieting_01.pdf
5. U.S. Food and Drug Administration. (2012, February 15). *How to understand and use the nutrition facts label*. Retrieved from <http://www.fda.gov/Food/ResourcesForYou/Consumers/NFLPM/ucm274593.htm#dvs>
6. U.S. Department of Health & Human Services. (n.d.). *Health facts: know your fats*. Retrieved from http://www.csrees.usda.gov/nea/food/pdfs/hhs_facts_fats.pdf
7. U.S. Department of Agriculture, U.S. Department of Health and Human Services. (2010). *Dietary guidelines for Americans, 2010* (7th ed.). Washington, DC: U.S. Government Printing Office.
8. U.S. Department of Health & Human Services. (n.d.). *Health facts: choose carbohydrates wisely*. Retrieved from http://www.csrees.usda.gov/nea/food/pdfs/hhs_facts_carbohydrates.pdf
9. Williams, P.G. (2005). Breakfast and the diets of Australian adults: an analysis of data from the 1995 National Nutrition Survey. *International Journal of Food Sciences and Nutrition*, 56(1), 65-79.
10. Farshchi, H.R., Taylor, M.A., Macdonald, I.A. (2005). Deleterious effects of omitting breakfast on insulin sensitivity and fasting lipid profiles in healthy lean women. *American Journal of Clinical Nutrition*, 81(2), 388–396.
11. Cho, S., Dietrich, M., Brown, C.J.P., Clark, C.A., & Block, G. (2003). The effect of breakfast type on total daily energy intake and body mass index: Results from the third National Health and Nutrition Examination Survey (NHANES III). *Journal of the American College of Nutrition*, 22(4), 296-302.
12. Wyatt, H.R., Grunwald, G.K., Mosca, C.L., Klem, M.L., Wing, R.R., & Hill, J.O. (2002). Long-term weight loss and breakfast in subjects in the National Weight Control Registry. *Obesity: A research journal*, 10(2), 78-82.
13. Sigma-Aldrich Corporation. (n.d.). *Lipoprotein function*. Retrieved from <http://www.sigmaaldrich.com/life-science/metabolomics/enzyme-explorer/learning-center/plasma-blood-protein/lipoprotein-function.html#Overview>

14. Boudi, F.B. (2011, December 21). Noncoronary atherosclerosis overview. *Medscape Reference*. Retrieved from <http://emedicine.medscape.com/article/1950759-overview#aw2aab6b3>
15. U.S. Department of Agriculture. (2011, June 30). *How much is my allowance for oils?* Retrieved from http://www.choosemyplate.gov/food-groups/oils_allowance_table.html
16. U.S. Department of Agriculture. (n.d.). *How are oils different from solid fats?* Retrieved from <http://www.choosemyplate.gov/food-groups/oils-how.html>
17. U.S. Department of Agriculture. (2011, June). *Salt and sodium: 10 tips to help you cut back*. Retrieved from <http://www.choosemyplate.gov/food-groups/downloads/TenTips/DGTipsheet14SaltAndSodium.pdf>
18. U.S. Food and Drug Administration. (2009, October). *Appendix A: Definitions of nutrient content claims*. Retrieved from <http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodLabelingNutrition/FoodLabelingGuide/ucm064911.htm>
19. The Coca-Cola Company. (2011). *125 years of sharing happiness: A short history of the Coca-Cola Company*. Retrieved from http://www.thecoca-colacompany.com/heritage/pdf/Coca-Cola_125_years_booklet.pdf
20. Young, L.R., & Nestle, M. (2002). The contribution of expanding portion sizes to the U.S. obesity epidemic. *American Journal of Public Health*, 92(2), 246-249.
21. Young, L.R., & Nestle, M. (2003). Expanding portion sizes in the U.S. marketplace: Implications for nutrition counseling. *Journal of the Academy of Nutrition and Dietetics*, 103(2), 231-234.
22. Wansink, B., & Kim, J. (2005). Bad popcorn in big buckets: Portion size can influence intake as much as taste. *Journal of Nutrition Education and Behavior*, 37(5), 242-245.
23. Rolls, B.J., Roe, L.S., Kral, T.V.E., Meengs, J.S., & Wall, D.E. (2004). Increasing the portion size of a packaged snack increases energy intake in men and women. *Appetite*, 42(1), 36-69.



Before you eat, think about what and how much food goes on your plate or in your cup or bowl. Over the day, include foods from all food groups: vegetables, fruits, whole grains, low-fat dairy products, and lean protein foods.

What's on your plate?



Make half your plate fruits and vegetables.



Make at least half your grains whole.



Switch to skim or 1% milk.



Vary your protein food choices.

Vegetables	Fruits	Grains	Dairy	Protein Foods
<p>Eat more red, orange, and dark-green vegetables like tomatoes, sweet potatoes, and broccoli in main dishes.</p> <p>Add beans or peas to salads (kidney or chickpeas), soups (split peas or lentils), and side dishes (pinto or baked beans), or serve as a main dish.</p> <p>Fresh, frozen, and canned vegetables all count. Choose "reduced sodium" or "no-salt-added" canned veggies.</p>	<p>Use fruits as snacks, salads, and desserts. At breakfast, top your cereal with bananas or strawberries; add blueberries to pancakes.</p> <p>Buy fruits that are dried, frozen, and canned (in water or 100% juice), as well as fresh fruits.</p>	<p>Substitute whole-grain choices for refined-grain breads, bagels, rolls, breakfast cereals, crackers, rice, and pasta.</p> <p>Check the ingredients list on product labels for the words "whole" or "whole grain" before the grain ingredient name.</p> <p>Choose products that name a whole grain first on the ingredients list.</p>	<p>Choose skim (fat-free) or 1% (low-fat) milk. They have the same amount of calcium and other essential nutrients as whole milk, but less fat and calories.</p> <p>Top fruit salads and baked potatoes with low-fat yogurt.</p> <p>If you are lactose intolerant, try lactose-free milk or fortified soy milk (soy beverage).</p>	<p>Eat a variety of foods from the protein food group each week, such as seafood, beans and peas, and nuts as well as lean meats, poultry, and eggs.</p> <p>Twice a week, make seafood the protein on your plate.</p> <p>Choose lean meats and ground beef that are at least 90% lean.</p> <p>Trim or drain fat from meat and remove skin from poultry to cut fat and calories.</p>
<p>For a 2,000-calorie daily food plan, you need the amounts below from each food group.</p> <p>To find amounts personalized for you, go to ChooseMyPlate.gov.</p>				
<p>Eat 2½ cups every day</p> <p>What counts as a cup? 1 cup of raw or cooked vegetables or vegetable juice; 2 cups of leafy salad greens</p>	<p>Eat 2 cups every day</p> <p>What counts as a cup? 1 cup of raw or cooked fruit or 100% fruit juice; ½ cup dried fruit</p>	<p>Eat 6 ounces every day</p> <p>What counts as an ounce? 1 slice of bread; ½ cup of cooked rice, cereal, or pasta; 1 ounce of ready-to-eat cereal</p>	<p>Get 3 cups every day</p> <p>What counts as a cup? 1 cup of milk, yogurt, or fortified soy milk; ½ ounces natural or 2 ounces processed cheese</p>	<p>Eat 5½ ounces every day</p> <p>What counts as an ounce? 1 ounce of lean meat, poultry, or fish; 1 egg; 1 Tbsp peanut butter; ½ ounce nuts or seeds; ¼ cup beans or peas</p>

Cut back on sodium and empty calories from solid fats and added sugars



Look out for salt (sodium) in foods you buy. Compare sodium in foods and choose those with a lower number.

Drink water instead of sugary drinks. Eat sugary desserts less often.

Make foods that are high in solid fats—such as cakes, cookies, ice cream, pizza, cheese, sausages, and hot dogs—occasional choices, not every day foods.

Limit empty calories to less than 260 per day, based on a 2,000 calorie diet.

Be physically active your way

Pick activities you like and do each for at least 10 minutes at a time. Every bit adds up, and health benefits increase as you spend more time being active.

Children and adolescents: get 60 minutes or more a day.

Adults: get 2 hours and 30 minutes or more a week of activity that requires moderate effort, such as brisk walking.

**10
tips**
Nutrition
Education Series

choose MyPlate
10 tips to a great plate



Making food choices for a healthy lifestyle can be as simple as using these 10 Tips.
Use the ideas in this list to *balance your calories*, to choose foods to *eat more often*, and to cut back on foods to *eat less often*.

1 balance calories
Find out how many calories YOU need for a day as a first step in managing your weight. Go to www.ChooseMyPlate.gov to find your calorie level. Being physically active also helps you balance calories.

2 enjoy your food, but eat less
Take the time to fully enjoy your food as you eat it. Eating too fast or when your attention is elsewhere may lead to eating too many calories. Pay attention to hunger and fullness cues before, during, and after meals. Use them to recognize when to eat and when you've had enough.



3 avoid oversized portions
Use a smaller plate, bowl, and glass. Portion out foods before you eat. When eating out, choose a smaller size option, share a dish, or take home part of your meal.

4 foods to eat more often
Eat more vegetables, fruits, whole grains, and fat-free or 1% milk and dairy products. These foods have the nutrients you need for health—including potassium, calcium, vitamin D, and fiber. Make them the basis for meals and snacks.



5 make half your plate fruits and vegetables
Choose red, orange, and dark-green vegetables like tomatoes, sweet potatoes, and broccoli, along with other vegetables for your meals. Add fruit to meals as part of main or side dishes or as dessert.

6 switch to fat-free or low-fat (1%) milk
They have the same amount of calcium and other essential nutrients as whole milk, but fewer calories and less saturated fat.



7 make half your grains whole grains
To eat more whole grains, substitute a whole-grain product for a refined product—such as eating whole-wheat bread instead of white bread or brown rice instead of white rice.

8 foods to eat less often
Cut back on foods high in solid fats, added sugars, and salt. They include cakes, cookies, ice cream, candies, sweetened drinks, pizza, and fatty meats like ribs, sausages, bacon, and hot dogs. Use these foods as occasional treats, not everyday foods.

9 compare sodium in foods
Use the Nutrition Facts label to choose lower sodium versions of foods like soup, bread, and frozen meals. Select canned foods labeled "low sodium," "reduced sodium," or "no salt added."



10 drink water instead of sugary drinks
Cut calories by drinking water or unsweetened beverages. Soda, energy drinks, and sports drinks are a major source of added sugar, and calories, in American diets.

MyPlate Food Intake Patterns

The United States Department of Agriculture has calculated "food intake patterns," which are the suggested amounts of food to consume from the basic food groups and oils to meet recommended nutrient intakes – based on calorie level. Nutrient and energy contributions from each group are calculated according to the nutrient-dense forms of food in each group (e.g., lean meats and fat-free milk).

Daily Amount of Food From Each Group												
Calorie Level ¹	1,000	1,200	1,400	1,600	1,800	2,000	2,200	2,400	2,600	2,800	3,000	3,200
Fruits ²	1 cup	1 cup	1.5 cups	1.5 cups	1.5 cups	2 cups	2 cups	2 cups	2 cups	2.5 cups	2.5 cups	2.5 cups
Vegetables ³	1 cup	1.5 cups	1.5 cups	2 cups	2.5 cups	2.5 cups	3 cups	3 cups	3.5 cups	3.5 cups	4 cups	4 cups
Grains ⁴	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	6 oz-eq	6 oz-eq	7 oz-eq	8 oz-eq	9 oz-eq	10 oz-eq	10 oz-eq	10 oz-eq
Meat and Beans ⁵	2 oz-eq	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	5.5 oz-eq	6 oz-eq	6.5 oz-eq	6.5 oz-eq	7 oz-eq	7 oz-eq	7 oz-eq
Milk ⁶	2 cups	2 cups	2 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups
Oils ⁷	3 tsp	4 tsp	4 tsp	5 tsp	5 tsp	6 tsp	6 tsp	7 tsp	8 tsp	8 tsp	10 tsp	11 tsp

Estimated daily calorie needs and daily limit for empty calories

To determine which food intake pattern to use, the following chart gives an estimate of individual calorie needs for women. The calorie range for each age is based on physical activity level, from sedentary to active.

"Sedentary" refers to a lifestyle that includes only the light physical activity associated with typical day-to-day life.

"Active" refers to a lifestyle that includes physical activity equivalent to walking more than 3 miles a day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.

Age Range	Calorie Range		Daily Limit for Empty Calories*
	Sedentary	Active	
31-50	1,800	→ 2,200	160
51+	1,600	→ 2,200	120

*These amounts are appropriate for individuals who get less than 30 minutes of moderate physical activity most days. Those who are more active need more total calories, and have a higher limit for empty calories.

Adapted from United States Department of Agriculture. (2005, April). *MyPyramid food Intake patterns*. Retrieved from http://www.choosemyplate.gov/food-groups/downloads/MyPyramid_Food_Intake_Patterns.pdf

United States Department of Agriculture. (2010, June 4). *Empty calories: how many can I have?* Retrieved from <http://www.choosemyplate.gov/weight-management-calories/calories/empty-calories-amount.html>

<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>	<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>
<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>	<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>
<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>	<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>
<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>	<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>
<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>	<p>100</p> <p>InSNC Bucks\$</p> <p>100</p>

Nutrition Facts Label

Information in all sections but #5 on the sample Nutrition Facts Label below contains product-specific information, including serving size, calories, nutrient values and the daily value percentage of each nutrient based on a 2,000-calorie diet. This information varies for each food product.

The footnote in section #5 on the sample label below contains Daily Values (DVs), or recommended levels of intakes, for 2,000 and 2,500 calorie diets. The footnote also provides recommended dietary information for important nutrients, including fats, sodium and fiber. This information is the same on all Nutrition Facts labels.

In this sample label, certain sections are in color to help you focus on those areas that will be explained in greater detail in this lesson.

Sample label for
Macaroni & Cheese

1 Start Here →

2 Check Calories

3 Limit these Nutrients

4 Get Enough

5 Footnote

Nutrition Facts	
Serving Size 1 cup (228g) Servings Per Container 2	
Amount Per Serving	
Calories 250	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

6

Quick Guide to % DV

- 5% or less is Low
- 20% or more is High

Adapted from U.S. Department of Health and Human Services. (n.d.). *How to understand and use the nutrition facts label*. Retrieved from <http://www.fda.gov/Food/ResourcesForYou/Consumers/NFLPM/ucm274593.htm>

Visualizing Portion Size with Common Objects

A fist or cupped hand = 1 cup



- 1 serving = $\frac{1}{2}$ cup cereal, cooked pasta or rice
 or 1 cup of raw, leafy green vegetables
 or $\frac{1}{2}$ cup of cooked or raw, chopped vegetables or fruit



Palm = 3 oz. of meat

Two servings, or 6 oz., of lean meat (poultry, fish, shellfish, beef) should be a part of a daily diet. Measure the right amount with your palm. One palm size portion equals 3 oz., or one serving.

A thumb = 1 oz. of cheese

Consuming low-fat cheese is a good way to help you meet the required servings from the milk, yogurt and cheese group. $1\frac{1}{2}$ - 2 oz. of low-fat cheese counts as 1 of the 2-3 daily recommended servings.



Thumb tip = 1 teaspoon

Keep high-fat foods, such as peanut butter and mayonnaise, at a minimum by measuring the serving with your thumb. One teaspoon is equal to the end of your thumb, from the knuckle up. Three teaspoons equals 1 tablespoon.



Handful = 1-2 oz. of snack food



Snacking can add up. Remember, 1 handful equals 1 oz. of nuts and small candies. For chips and pretzels, 2 handfuls equals 1 oz.



1 tennis ball = 1 serving of fruit

Healthy diets include 2-4 servings of fruit a day.

Because hand sizes vary, compare your fist size to an actual measuring cup.

Serving Sizes

Use familiar objects to judge a single serving size.

½ cup vegetable
½ cup cooked pasta
½ cup of beans
1 small baked potato

Computer mouse



1 medium piece of fruit

Tennis ball



1 cup of raw vegetables
1 cup dry cereal
1 cup of lowfat yogurt or milk

Baseball or your fist



1 small bagel

Hockey puck



1 small (4-4 ½ inch) pancake

CD



2 ounces of cheese

2 pair of dice

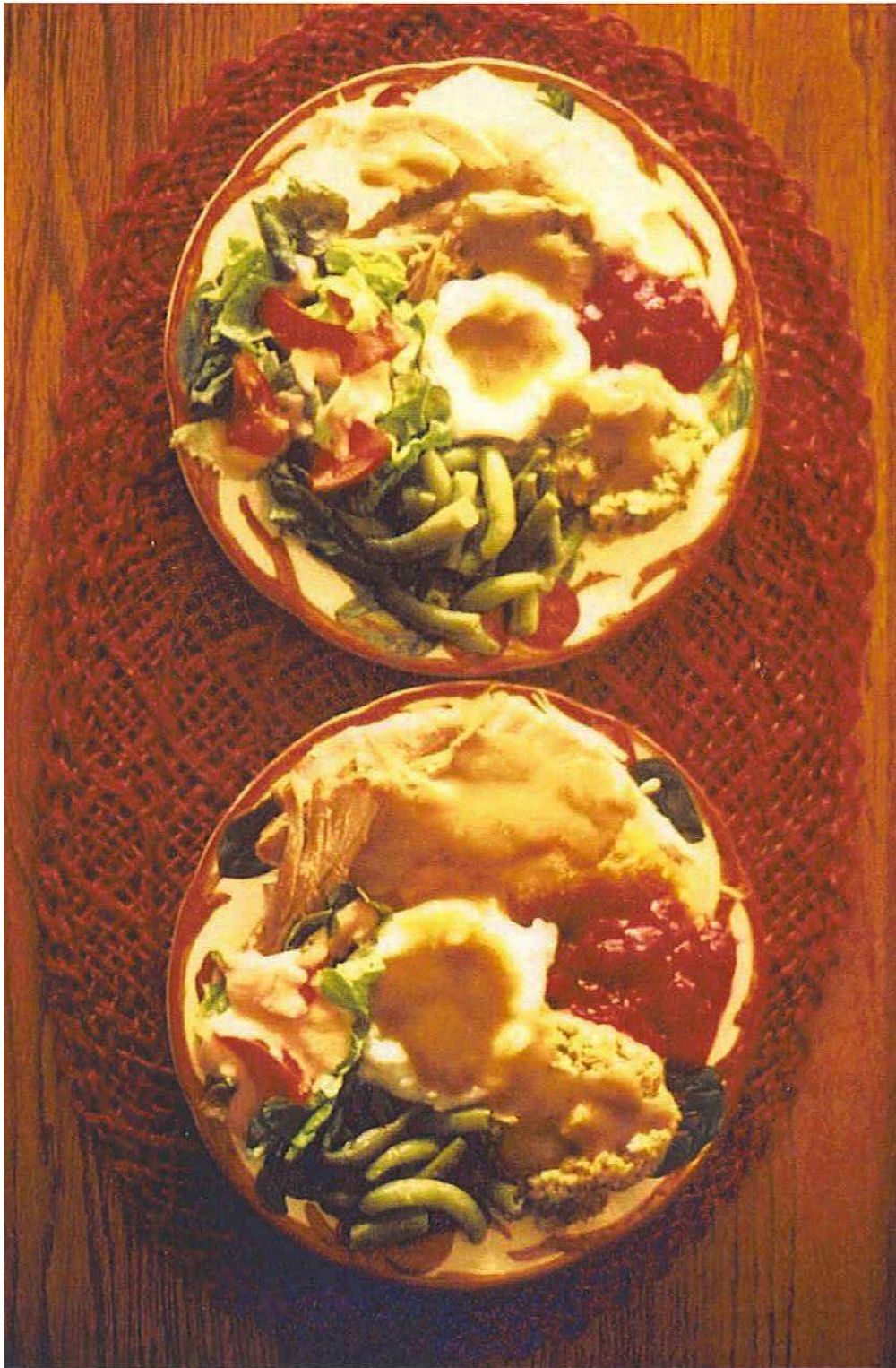


2-3 ounces of meat, poultry or fish

Deck of cards or the palm
of your hand



Rate the Full Plate



Portion Sizes: Meals Matter Worksheet

Directions:

Using craft pompoms and clay, recreate a recent meal on the plate provided.

Record the food items you ate under Meal 1 on this worksheet.

Determine if the portions you had were larger or smaller compared to the food models.

Repeat for Meal 2.

Meal 1

Circle one

- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller

Meal 2

Circle one

- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller
- Bigger/Smaller

Bottom Plate			Top Plate	
Serving Size	Calories		Calories	Serving Size
5 oz (w/ skin)	305	Turkey	135	3 oz (w/o skin)
½ c	200	Stuffing	100	¼ c
¼ c	15	Green Beans	30	½ c
½ c	110	Mashed Potatoes	55	¼ c
¼ c	160	Gravy	80	2 tbsp
¼ c	10	Tossed Salad	20	¼ c
2 ½ tbsp	200	Salad Dressing	80	1 tbsp
¼ c	100	Cranberry Sauce	50	2 tbsp
	1,100	Total Calories	550	

Difference = 550 Calories

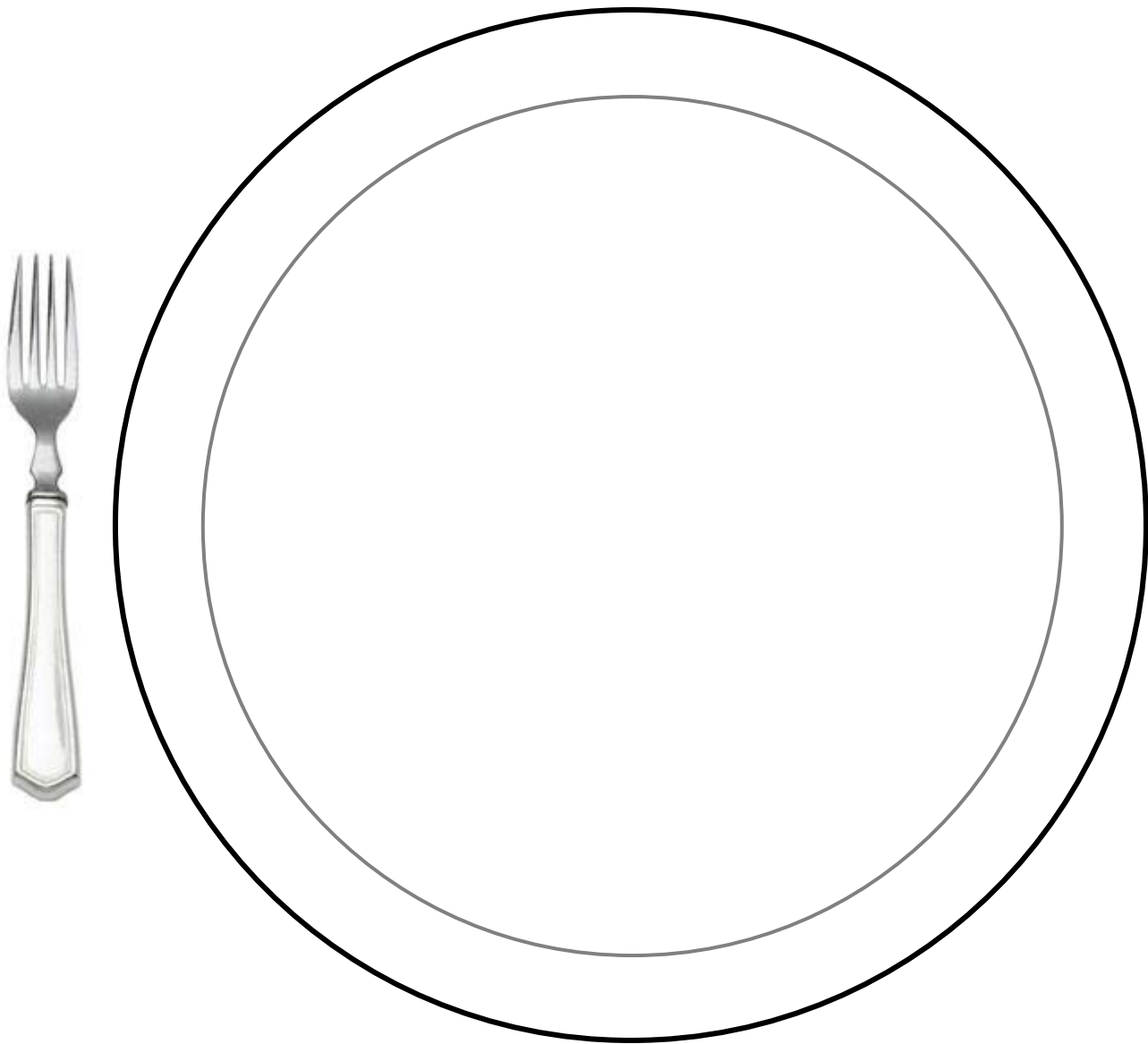
When you control portion size...

...you can get half the calories and still eat all the foods you enjoy!

Adapted from Department of Family and Consumer Sciences, University of Wyoming Cooperative Extension Service. (n.d.). *Full plate*. Retrieved from http://www.uwyo.edu/winwyoming/Small_Victories/graphics/full_plate.jpg

Department of Family and Consumer Sciences, University of Wyoming Cooperative Extension Service. (2006, July). *Rate a full plate*. Retrieved from http://www.uwyo.edu/winwyoming/Small_Victories/FullPlate/RateFullPlateHandout_0606.pdf

I Revised MyPlate! Worksheet



Adapted from National Center for Health Promotion and Disease Prevention. (2011, July 18). *Rate your plate worksheet*. Retrieved from http://www.move.va.gov/download/GWorksheets/GW05_RateYourPlateWorksheet.pdf.

Food Label Basics

Nutrition Facts	
Serving Size 1 cup (228g)	
Servings Per Container about 2	
Amount Per Serving	
Calories 250	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
<i>Trans</i> Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Proteins 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

For educational purposes only. This label does not meet the labeling requirements described in 21 CFR 101.9.

From the U.S. Food and Drug Administration. (n.d.). *Nutrition facts label*. Retrieved from <http://www.fda.gov/downloads/Food/LabelingNutrition/PrintInformationMaterials/UCM272926.pdf>

Single Serving or Double Serving?

	Single Serving	%DV	Double Serving	%DV
Serving Size	1 cup (228g)		2 cups (456g)	
Calories	250		500	
Calories from Fat	110		220	
Total Fat	12g	18%	24g	36%
Saturated Fat	3g	15%	6g	30%
Trans Fat	3g		6g	
Cholesterol	30mg	10%	60mg	20%
Sodium	470mg	20%	940mg	40%
Total Carbohydrate	31g	10%	62g	20%
Dietary Fiber	0g	0%	0g	0%
Sugars	5g		10g	
Proteins	5g		10g	
Vitamin A		4%		8%
Vitamin C		2%		4%
Calcium		20%		40%
Iron		4%		8%

From the U.S. Food and Drug Administration. *How to understand and use the nutrition facts label*. Retrieved from <http://www.fda.gov/Food/ResourcesForYou/Consumers/NFLPM/ucm274593.htm>

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container about 2

Amount Per Serving

Calories 250 Calories from Fat 110

		% Daily Value*
Total Fat 12g		18%
Saturated Fat 3g		15%
Trans Fat 3g		
Cholesterol 30mg		10%
Sodium 470mg		20%
Total Carbohydrate 31g		10%
Dietary Fiber 0g		0%
Sugars 5g		
Proteins 5g		
Vitamin A		4%
Vitamin C		2%
Calcium		20%
Iron		4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

1 Serving Size

2 Amount of Calories

3 Limit these Nutrients

4 Get Enough of these Nutrients

5 Percent (%) Daily Value

6 Footnote with Daily Values (DVs)

For educational purposes only. This label does not meet the labeling requirements described in 21 CFR 101.9.

From the U.S. Food and Drug Administration. (n.d.). *Nutrition facts label*. Retrieved from <http://www.fda.gov/downloads/Food/LabelingNutrition/PrintInformationMaterials/UCM272930.pdf>

