



CHAPTER

4

Nutrition

Learning About Nutrition



Good nutrition gives you strength and energy.



Good nutrition prevents disease.



Poor nutrition can cause health problems like obesity and always getting sick.

Nutrition

Nutrition is how the body uses food to stay healthy. Good nutrition means that the body gets enough of the foods it needs to stay healthy. Poor nutrition means that the body is not getting the foods it needs.

Nutrition affects health in many ways. Good nutrition helps the body to grow, to stay strong, and to have energy. Good nutrition helps the body fight sickness and disease. Poor nutrition makes it easier to get colds and infections. Poor nutrition can cause **obesity** and make it easier to get other diseases like cancer, diabetes, and heart disease.

Food contains **nutrients**. Different foods have different kinds of nutrients. Each nutrient does an important job for the body.



This chapter will answer these questions:

- Why are nutrients important?
- What foods will keep me healthy?
- How do I read food labels?

What are Nutrients and Why Are They Important?

To stay healthy you must eat the foods with the right kinds of nutrients. All foods contain three important nutrients: carbohydrates, proteins, and fats. Everyone needs carbohydrates, proteins, and fats to stay alive. Other important nutrients are fiber, vitamins, and minerals.

Famous Sayings About Staying Healthy

“An apple a day keeps the doctor away.”

“He who neglects his diet wastes the skill of his doctor.”

Carbohydrates (Carbs)

Carbohydrates give the body energy. Very active people need more carbohydrates. There are two types of carbohydrates: simple and complex. Simple carbohydrates give us quick energy. Complex carbohydrates give us energy that lasts longer.

Simple carbs have lots of sugar and give us quick energy



Complex carbs give us energy that lasts longer



Proteins

Proteins help the body and muscles grow. Everyone needs proteins for strong muscles and to heal the body. Children need more proteins because their bodies and minds are still growing. Most people eat enough protein.



Sources of protein include meats, beans, dairy, and eggs.

Fats

The fats in food give the body energy, but only after the body uses the energy it gets from carbohydrates. Fat is also the way the body stores energy for later. Everyone needs some fats from food. Most people eat too much fat.



Sources of fat include cream, cheese, fried foods, and lard.

Fiber (Dietary Fiber)

Fiber helps food move through the body. Fiber also helps the body get rid of waste. You need to drink a lot of water with fiber to make it work well. Fiber can prevent some kinds of cancer. Fiber also makes you feel full, so you will not eat too much. Most people do not eat enough fiber.



Sources of fiber include whole wheat bran, fruits, and vegetables.

Other types of nutrients are vitamins and minerals.

Vitamins

You need many kinds of vitamins to stay healthy. Some vitamins help the body fight common problems like colds, flu, and infections. Other vitamins help make bones, teeth, skin and eyes healthy. Ask your doctor what vitamins you need.



Sources of vitamins include fruits, vegetables, and other foods.

Calcium

Calcium is a mineral. It helps build strong bones. Many people, especially women do not get enough calcium.



Sources of calcium include dairy products, green leafy vegetables, salmon, and sardines.



Sources of iron include red meat, dried beans, dried fruit, eggs, salmon, tuna, spinach, and dandelion greens.

Iron

Iron helps the blood do its job better. Blood takes oxygen and other nutrients around to all parts of the body. If you do not have enough iron, your body gets weak and cannot work well. Most people get enough iron. Pregnant women often need more iron.



Sources of sodium include soy sauce, pizza, frozen foods, and canned soups.

Sodium (salt)

Sodium is another word for salt. Foods that taste salty have a lot of sodium. Foods that make you thirsty probably have a lot of sodium. Most people eat too much sodium (salt).

This chart shows nutrients in foods and what they do to keep you healthy.

What Foods Will Keep Me Healthy?

Nutrients	What they do	Foods with these nutrients
Carbohydrates	<ul style="list-style-type: none"> • Give you energy 	
Proteins	<ul style="list-style-type: none"> • Build muscles • Repair cells 	
Fats	<ul style="list-style-type: none"> • Store energy for later use 	
Fiber	<ul style="list-style-type: none"> • Helps get rid of waste 	
Vitamins	<ul style="list-style-type: none"> • Help fight sickness • Keep the body healthy 	
Calcium	<ul style="list-style-type: none"> • Keeps bones strong 	
Iron	<ul style="list-style-type: none"> • Helps the blood do its job 	
Sodium (salt)	<ul style="list-style-type: none"> • Helps muscles and nerves 	

Rules for Healthy Eating










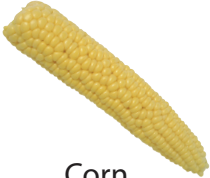










These rules for healthy eating will help you stay healthy.

- 1. More variety** – Eat different kinds of foods. This variety helps you get all the nutrients you need.
 - Try a new fruit or vegetable
 - Trade recipes with friends
- 2. More fruits and vegetables** – Eat more fruits and vegetables. Fruits and vegetables give you fiber and many different kinds of vitamins.
 - Have fruits and vegetables with each meal
 - Eat fruits and vegetables for snack
- 3. Less fat** – Do not eat too much fat. Too much fat can lead to health problems like high blood pressure, heart disease, and cancer.
 - Bake or broil foods instead of frying
 - Use low fat milk instead of whole milk
- 4. Less sugar** – Do not eat too much sugar. Too much sugar can lead to health problems like obesity, diabetes, and poor teeth.
 - Limit the amount of candy and sweet foods you eat
 - Drink water instead of sodas and fruit drinks



Eat 5-9 Servings of Fruits and Vegetables Every Day!

One of the best things you can do for your health is to eat more fruits and vegetables. Which of these do you eat? Which are new to you?

Fruits and Vegetables Chart				
 Apple	 Banana	 Grapefruit	 Orange	 Pear
 Carrot	 Bell Pepper	 Celery	 Spinach	 Corn
 Peas	 Green Beans	 Broccoli	 Tomato	 Tomatillo
 Onion	 Cactus	 Fig	 Mango	 Papaya

How Do I Read Food Labels and Nutrition Facts?

Food labels tell you how much of the different nutrients are in that food. You can find the label on the package. It is called “**Nutrition Facts**”. Reading the label can help you choose foods that are best for you.



Measuring serving size, calories and nutrients in foods:

- Serving size is measured in grams, milligrams, ounces, and cups.
- Energy is measured in calories (cal).
- Nutrients are measured in grams (g) or milligrams (mg).

How Do I Read Food Labels?

This label is from a package of macaroni and cheese.
The colors and numbers will help you read food labels.

1 Start Here →

This package has enough for 2 people to have 1 serving. The serving size is 1 cup.

2 Check Calories

Each serving has 250 calories. 110 of those 250 calories are from fat.

3 Limit these Nutrients

It's easy to get too much fat, too much salt, and too many carbs.

4 Get Enough of these Nutrients

It's hard to get too many vitamins and minerals!

This food is rich in calcium.

5 Footnote

This section explains more about Nutrients and fiber listed above.

Most people need less than
65 g of fat a day
300 mg of cholesterol a day
2,400 mg of salt a day
350 g of carbohydrates a day

Nutrition Facts

Serving Size 1 Cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250 **Calories from Fat 110**

% Daily Value*

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

Percentage 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

How many calories?
250

How many calories are from fat? 110

What percent of calories comes from fat? 44%

Less than 1/3 (33%) of your calories should come from fat.

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Quick Guide to % DV

5% or less is Low

20% or more is High

The percentage (%) daily value (DV) tells how much of the nutrient one serving of food contains compared to what is recommended for the whole day. For example: 20% calcium is 1/5 of how much calcium you need each day.

Serving size is measured in milligrams, grams, ounces, cups, or pieces. Serving size is the amount of food that equals the amount of nutrients listed on the food label. Be careful! The serving size is often less than what you might usually eat.

1 Serving Looks Like . . .	1 Serving Looks Like . . .
<p>GRAIN PRODUCTS</p> <p>1 cup of cereal flakes = fist </p> <p>1 pancake = compact disc </p> <p>½ cup of cooked rice, pasta, or potato = ½ baseball </p> <p>1 slice of bread = cassette tape </p> <p>1 piece of cornbread = bar of soap </p>	<p>VEGETABLES AND FRUIT</p> <p>1 cup of salad greens = baseball </p> <p>1 baked potato = fist </p> <p>1 med. fruit = baseball </p> <p>½ cup of fresh fruit = ½ baseball </p> <p>¼ cup of raisins = large egg </p>
1 Serving Looks Like . . .	1 Serving Looks Like . . .
<p>DAIRY AND CHEESE</p> <p>1½ oz. cheese = 4 stacked dice or 2 cheese slices </p> <p>½ cup of ice cream = ½ baseball </p> <p>FATS</p> <p>1 tsp. margarine or spreads = 1 dice </p>	<p>MEAT AND ALTERNATIVES</p> <p>3 oz. meat, fish, and poultry = deck of cards </p> <p>3 oz. grilled/baked fish = checkbook </p> <p>2 Tbsp. peanut butter = ping pong ball </p>

Use a measuring cup to know how much a serving size is. For example, if the label on a box of cereal says the serving size is 1 cup, use a measuring cup and pour that into a bowl and remember how much that is.

The chart at left gives you another way to remember serving sizes. For example, a cup of cereal is about the same size as your fist.

How much do you usually eat? If you eat two cups of cereal, then you are eating double the serving size, calories, and nutrients listed on the label.

Source of above chart:

<https://www.nhlbi.nih.gov/health/educational/wecan/downloads/servingcard7.pdf>

Calories measure how much energy you get from food. If you do not eat enough calories, you will not have enough energy. When you eat more calories than you need for energy, the body turns the extra calories to fat, and you gain weight. The number of calories you need depends on how tall you are, how old you are, how active you are, and if you are a child, man or woman. Women who are pregnant or breastfeeding need more calories.

Calories come from the carbohydrates, proteins, and fats in food. Fats have more calories than carbs and proteins:

- 1 gram of fat = 9 calories.
- 1 gram of carbs = 4 calories
- 1 gram of protein = 4 calories

A Healthy Weight

BMI or Body Mass Index is an easy way to see if you are too heavy, too thin, or just right. BMI is a number that you calculate using your height (how tall you are) and your weight (how heavy you are). BMI tells if you are too heavy, too thin, or just right, but you should also check with a doctor.

To Find Your BMI

1. Measure your height and weight. You can use inches and pounds or centimeters and kilograms.
2. Go to www.nhlbisupport.com/bmi/bmicalc.htm.
3. Enter your height and weight.
4. Read your BMI in the chart.
5. Find your BMI on the chart. Are you: underweight, normal weight, overweight, or obese?

What if There is No Label?

Some foods do not come in a package. Many fruits and vegetables do not come in a package, so they do not have labels. You can find nutrition information about them in the Internet resources at the end of this chapter.



Don't Forget Water!



Water helps the body to work well and to use the food that you eat. Try to drink 8 glasses of water each day. When the weather is hot, or if you are exercising, you need to drink more. Water is much healthier than juice or soda. It's a lot cheaper, too!

Check Your Learning

What is another word for salt?

- m Sodium
- m Saturated
- m Soda



Key Points

- Good nutrition keeps you healthy.
- Eat more fruits and vegetables.
- Eat less fat and sugar.
- Read food labels to help you choose healthy foods.

How Can a Doctor or Dietician Help?

- Ask your doctor if your weight is healthy or if you should lose weight or gain weight.
- A licensed dietician is a health care provider that specializes in nutrition. Your doctor may **refer** you to a dietician if you have a **chronic disease** like diabetes or high cholesterol.



Dialog

Doctor: You are overweight and need to lose weight. It will help if you change your diet.

Patient: How do I change my diet?

Doctor: Eat less calories from fat. Eat less meat, dairy products and eggs. Can you eat less of these foods?

Patient: I have tried to eat less fat, but I am not sure what to eat instead. How can I get help to change my diet?

Doctor: I can refer you to a dietician. The dietician can meet with you a few times and help you change your diet.

How Can I Learn More?

Visit these websites to learn more about nutrition.

Information

FLC Nutrition Basics Video

<https://youtu.be/l0cZfaadP3k>

Fruit and Vegetable Nutrition Information

<https://fruitsandveggies.org/fruits-and-veggies/>

Lowering Your Cholesterol with TLC

https://www.nhlbi.nih.gov/files/docs/public/heart/chol_tlc.pdf

Deliciously Healthy Dinners

https://www.nhlbi.nih.gov/files/docs/public/heart/Dinners_Cookbook_508-compliant.pdf

Food and Diet Information (in English and Spanish)

English: <http://www.choosemyplate.gov/>

Spanish: <http://www.choosemyplate.gov/en-espanol.html>

Vitamins and Other Nutrients

<http://kidshealth.org/en/teens/vitamins-minerals.html>

Activities

Fruits and Veggies Matter

<http://www.fruitsandveggiesmorematters.org/get-kids-to-eat-fruits-and-vegetables>

Aim for a Healthy Weight (click on BMI Calculator)

http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/index.htm

Free or Low Cost Services

Florida WIC Nutrition Services for Women, Infants and Children (in English, Spanish, or Haitian Creole)

<http://www.doh.state.fl.us/family/wic> or call 1-800-343-3556

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