
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 | • Give you energy |  |
| Proteins | • Build muscles<br>• Repair cells |  |
| Fats | • Store energy for later use |  |
| Fiber | • Helps get rid of waste |  |
| Vitamins | • Help fight sickness<br>• Keep the body healthy |  |
| Calcium | • Keeps bones strong |  |
| Iron | • Helps the blood do its job |  |
| Sodium (salt) | • 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

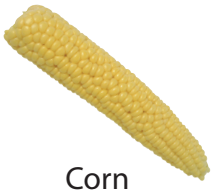
3. Less fat – Do not eat too much fat. Too much fat can lead to health problems like high blood pressure, heart disease, and cancer.
   - Bake or broil foods instead of frying
   - Use low fat milk instead of whole milk

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.

**6**

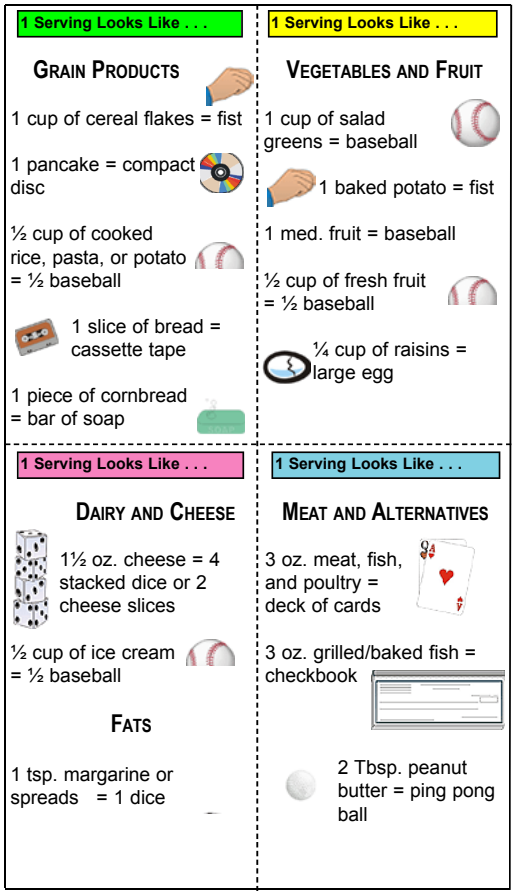
**Quick Guide to % DV**

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.




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 https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm.
3. Enter your height and weight. Use *standard* for feet and pounds or *metric* for centimeters and kilograms.
4. Click on *Compute BMI* button
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?**

- ❍ Sodium
- ❍ Saturated
- ❍ 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://healthyeating.nhlbi.nih.gov/

**Food and Diet Information (in English and Spanish)**
English: http://www.choosemyplate.gov/
Spanish: https://www.myplate.gov/es/myplate-plan

**Vitamins and Other Nutrients**
http://kidshealth.org/en/teens/vitamins-minerals.html

## Activities

**Fruits and Veggies Matter**
https://healthysd.gov/fruits-veggies-more-matters

**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

# NOTES

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