

# Skills for Living

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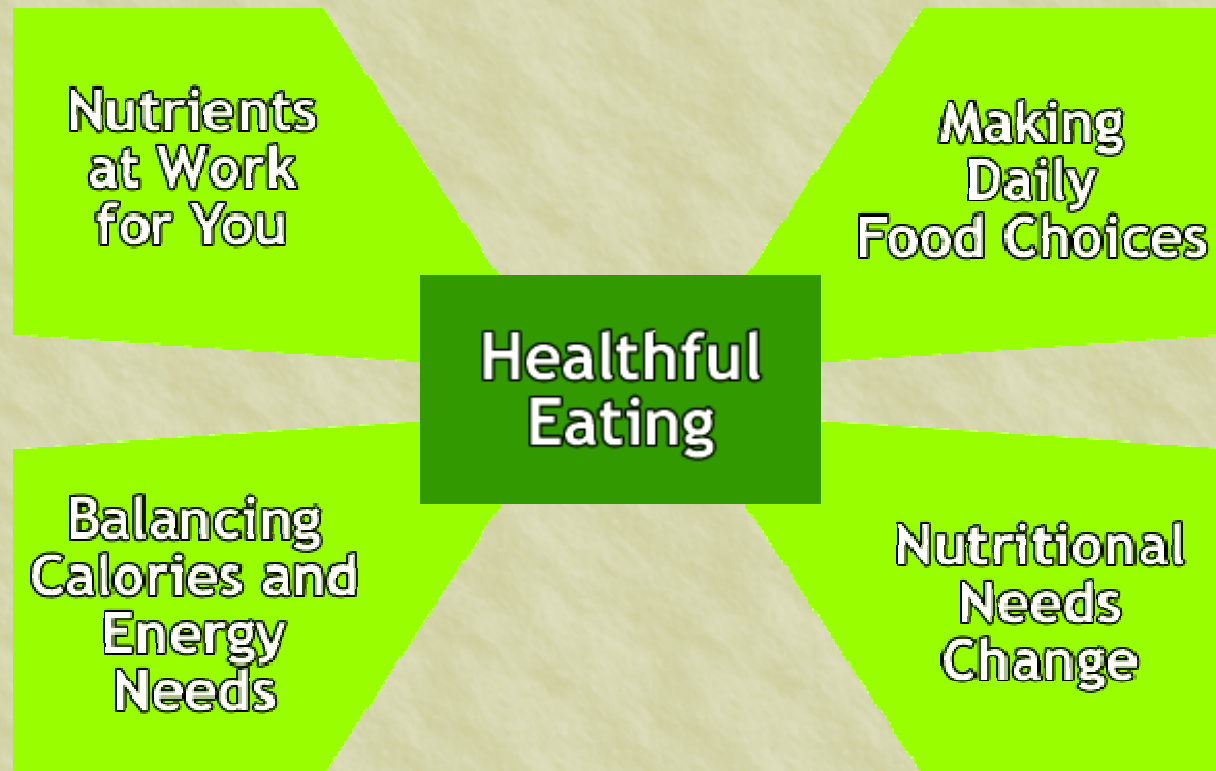


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# Chapter 12

## Healthful Eating

- In this chapter, you will learn



# Topic 12-1

## Nutrients at Work for You

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- In this topic, you will learn about the functions and source of nutrients, as well as
  - ❖ Carbohydrates
  - ❖ Proteins
  - ❖ Fats
  - ❖ Minerals
  - ❖ Vitamins
  - ❖ Water
  - ❖ Dietary Reference Intakes

# Nutrients at Work for You

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## **Objectives for Topic 12-1**

After studying this topic, you will be able to

- explain the importance of choosing nutritious foods
- identify good food sources of various nutrients and describe how your body uses them

# Topic 12-1 Terms

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- ❖ nutrient
- ❖ nutrition
- ❖ carbohydrate
- ❖ protein
- ❖ amino acid
- ❖ fat
- ❖ saturated fat
- ❖ unsaturated fat
- ❖ cholesterol
- ❖ mineral
- ❖ legume
- ❖ vitamin
- ❖ fortified
- ❖ enriched
- ❖ Dietary Reference Intakes (DRIs)

# Nutrients at Work for You

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- *Nutrients* are chemical substances from food, which the body uses to function properly
- *Nutrition* is the science of how nutrients support the body

# Nutrients at Work for You

- Nutrients that keep your body working properly include

Carbohydrates

Fats

Vitamins

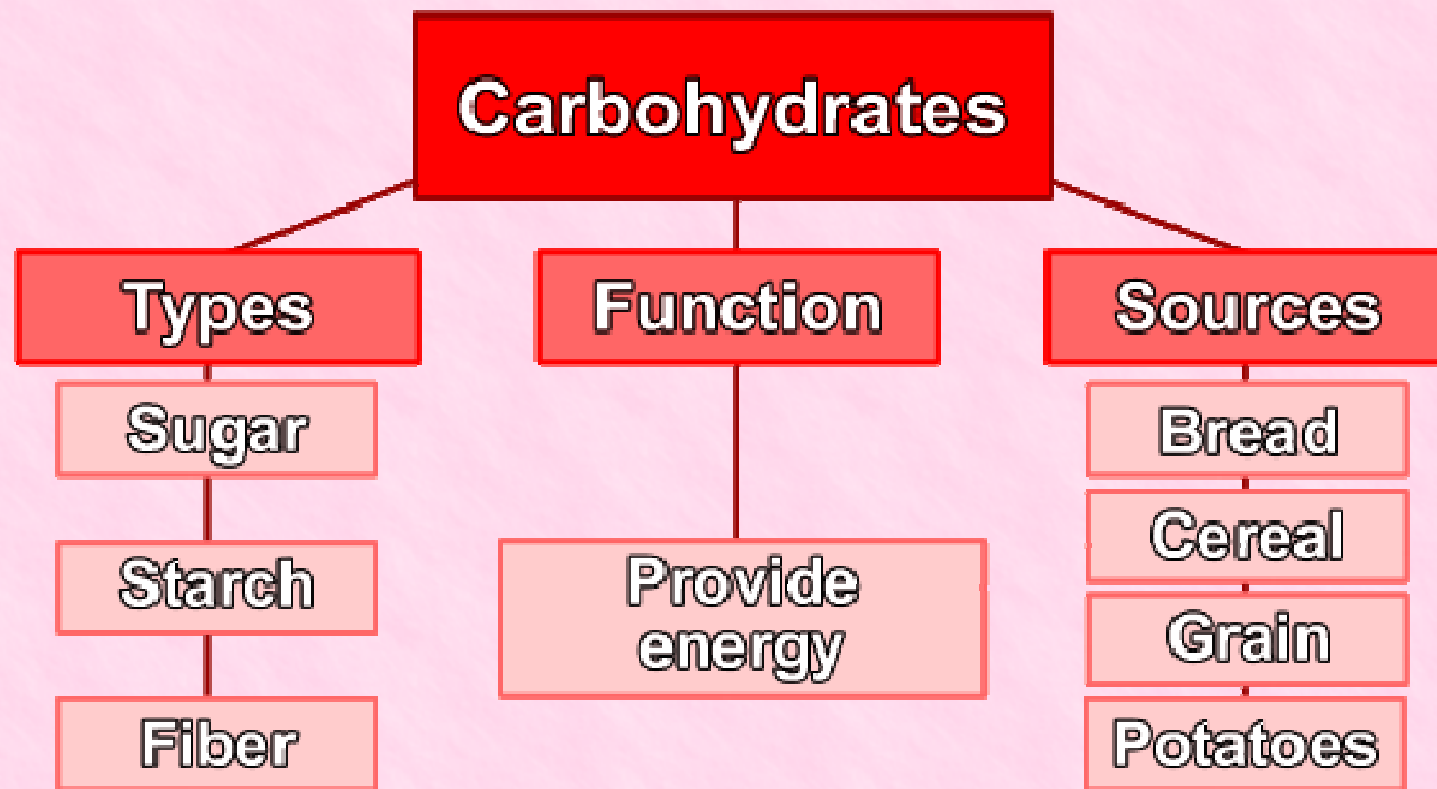
Proteins

Minerals

Water

# Carbohydrates

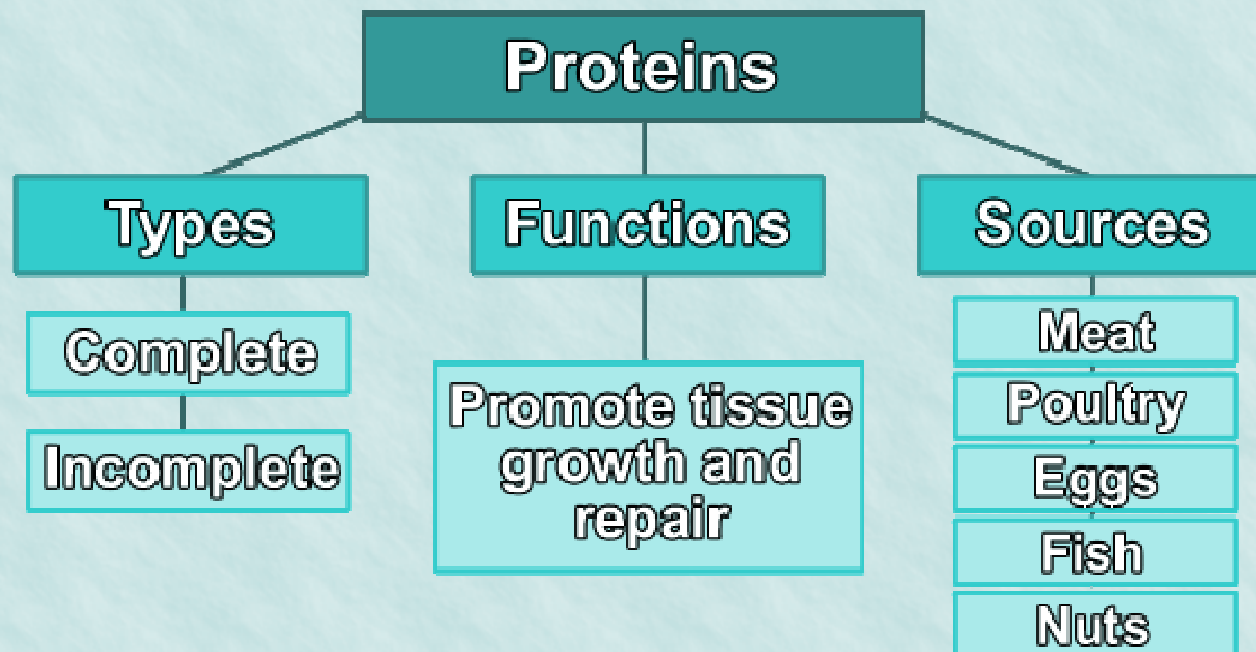
- *Carbohydrates* are the major sources of energy in your diet





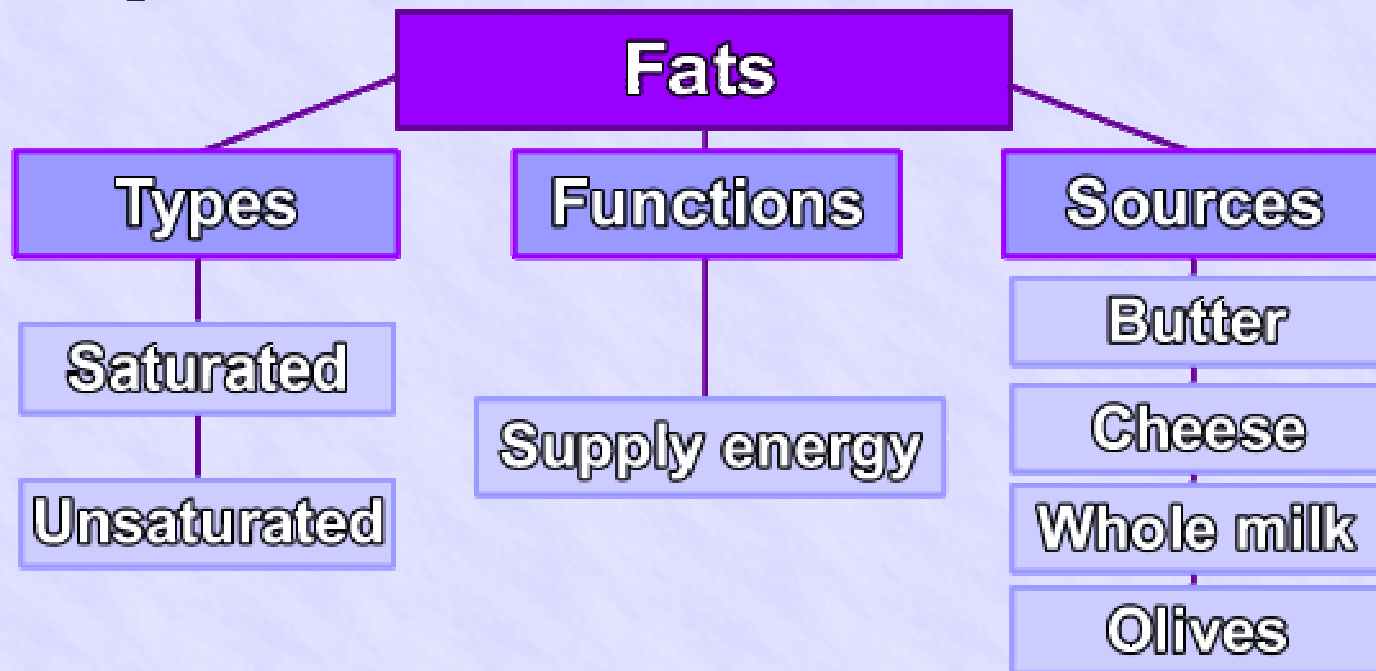
# Proteins

- **Proteins** are nutrients found in every cell of your body
  - ❖ They are made up of **amino acids**, which are the building blocks for your cells



# Fats

- **Fats** are concentrated sources of food energy
  - ❖ **Saturated fats** are solid at room temperature
  - ❖ **Unsaturated fats** are most often liquid at room temperature



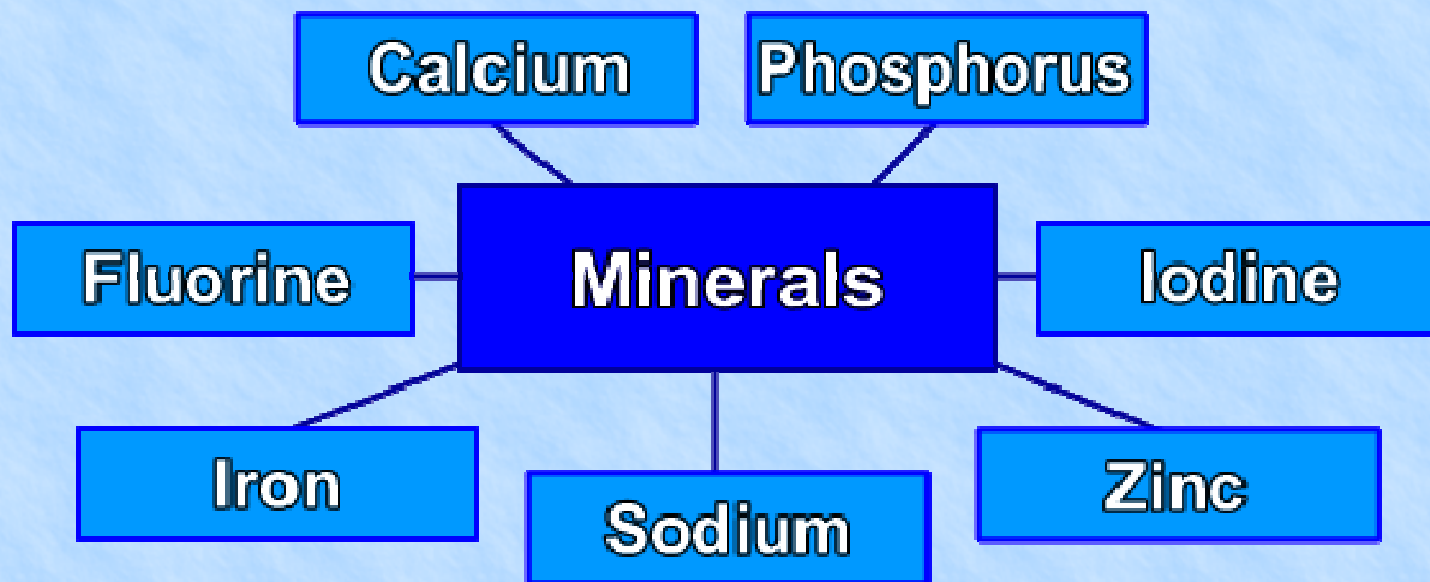
# Fats

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- *Cholesterol* is a fatty substance found in every body cell
  - ❖ Your body manufactures all the cholesterol you need
  - ❖ You also get cholesterol when you eat food from animal sources, such as eggs and shellfish
- Saturated fats and dietary cholesterol tend to raise blood cholesterol levels

# Minerals

- **Minerals** are inorganic substances needed for building tissues and regulating body functions



# Minerals

<b>Mineral</b>	<b>Function</b>	<b>Sources</b>
<b>Calcium and phosphorus</b>	<b>help build bones and teeth</b>	<b>dairy products</b>
<b>Fluorine</b>	<b>helps in proper development of bones and teeth</b>	<b>fluorinated drinking water</b>
<b>Iodine</b>	<b>enables normal functioning of the thyroid gland</b>	<b>iodized table salt, saltwater fish, shellfish</b>

# Minerals

<b>Mineral</b>	<b>Function</b>	<b>Sources</b>
<b>Iron</b>	combines with protein to make hemoglobin	liver, lean meat, eggs, dried beans
<b>Sodium</b>	helps maintain the balance of the body fluids	table salt, processed foods
<b>Zinc</b>	promotes normal growth and development, helps wounds heal	meat, fish, poultry, whole grains

# Did You Know...



- Peanuts are a source of seven minerals, including magnesium, copper, phosphorous, potassium, zinc, iron, and calcium
  - ❖ Peanuts are *legumes*, or seeds that grow in the pods of some vegetable plants

Source: American Peanut Council

# Vitamins

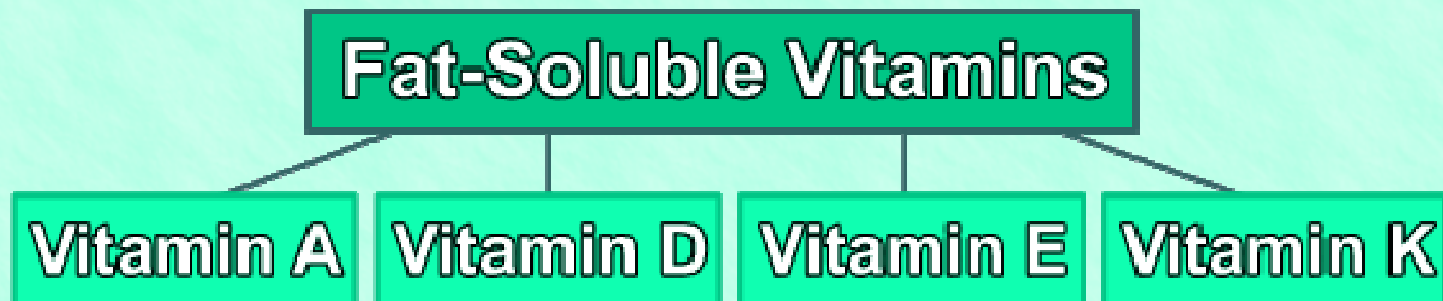
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- *Vitamins* are organic substances needed for normal growth
- Most vitamin needs can be met by eating a variety of foods
  - ❖ *Fortified* means nutrients have been added to a food to improve its nutrition value



# Fat-Soluble Vitamins

- *Fat-soluble vitamins* can be stored in fatty tissues and in the liver

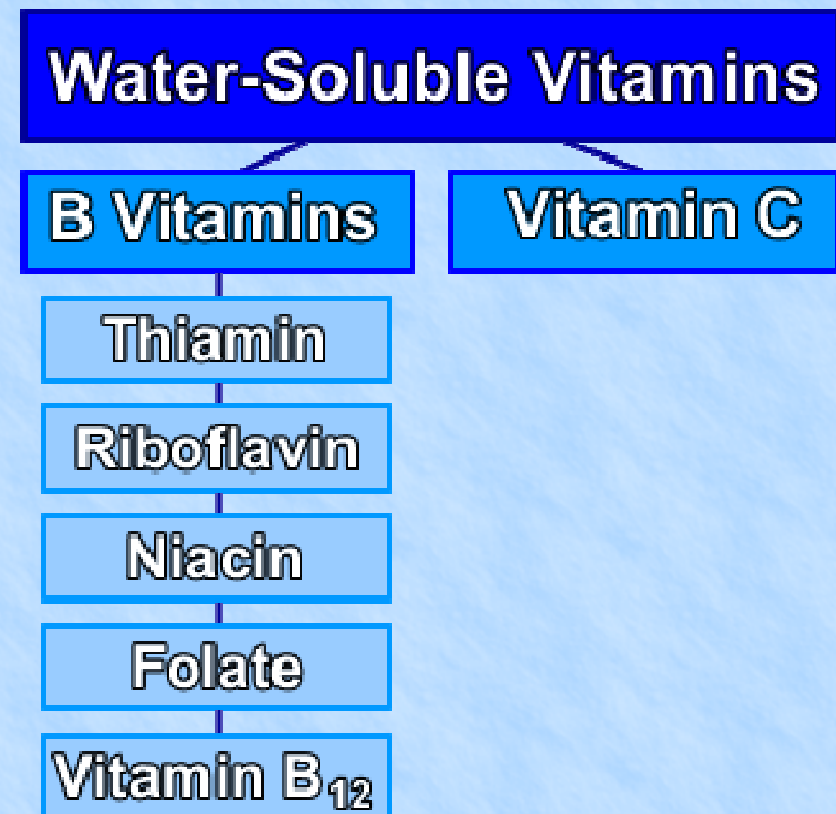


# Fat-Soluble Vitamins

<b>Vitamin</b>	<b>Function</b>	<b>Sources</b>
<b>Vitamin A</b>	helps promote good vision, normal growth, healthy skin	liver, egg yolk, dark green and yellow fruits and vegetables
<b>Vitamin D</b>	helps build strong bones in children, helps maintain bones in adults	butter, fish, liver oils, fortified milk
<b>Vitamin E</b>	acts as an antioxidant	liver, eggs, whole grain cereals, leafy green vegetables
<b>Vitamin K</b>	helps blood clot	organ meats, leafy green vegetables, egg yolk

# Water-Soluble Vitamins

- *Water-soluble vitamins* are not stored in the body but are excreted in urine



# Water-Soluble Vitamins

- Water-soluble vitamins can be lost during cooking or processing food
- Some foods, such as white flour, are *enriched*, meaning nutrients that were lost during processing have been added back to the product



# Water-Soluble Vitamins

<b>Vitamin</b>	<b>Function</b>	<b>Sources</b>
<b>Thiamin</b>	helps digestion, helps keep nervous system healthy	pork, legumes, whole grains, enriched grain products
<b>Riboflavin</b>	helps the body obtain energy from foods, needed for healthy skin and normal vision	dairy products, meats, leafy green vegetables
<b>Niacin</b>	helps the body obtain energy from foods, needed for healthy skin and proper functioning of the nervous system	meat, poultry, fish, nuts, dried beans, whole grains

# Water-Soluble Vitamins

Vitamin	Function	Sources
Folate	helps the body make all new cells; helps the brain and spinal cord of an unborn baby grow properly	fruits and vegetables, enriched and whole grain products
Vitamin B <sub>12</sub>	helps the body make red blood cells and protects nerves	meat, fish, poultry, eggs, dairy products
Vitamin C	needed for healthy gums and tissues, helps heal wounds and fight infections, helps hold body cells together	citrus fruits, green leafy vegetables, strawberries, cantaloupe, tomatoes, potatoes

# Did You Know...

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- The high heat of the home canning process can cause foods to lose up to half of their vitamin C

Source: University of Minnesota Extension Service

# Water

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- Water is a basic part of blood and tissue fluid
  - ❖ It helps carry nutrients to cells and waste product from the cells
  - ❖ It also helps control body temperature
- Sources of water include drinking water, beverages, soups, most foods



# Dietary Reference Intakes (DRIs)



- The *Dietary Reference Intakes (DRIs)* outline nutrient requirements for each sex and several age groups
- Eating a variety of nutritious foods will help you meet the DRIs for needed nutrients

# Summary for Topic 12-1

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- To eat a healthy diet, you need to be aware of the various nutrients that are in foods
- The six basic nutrients are
  - ❖ carbohydrates
  - ❖ proteins
  - ❖ fats
  - ❖ minerals
  - ❖ vitamins
  - ❖ water

# Summary for Topic 12-1

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- Each nutrient serves different functions in the body
- Each nutrient can be obtained from a number of food sources
- Knowing your nutrient needs will help you meet them through the foods you eat every day