

# Nutrients: CARBS

## Complex Carbohydrates

- Include *starches* and some forms of *fiber*.
- About 50% of your diet should come from complex carbohydrates.
- **Examples** of foods containing complex carbohydrates include pasta, wheat, corn, vegetables, fruit, sweet potatoes, beans and grains.

## Simple carbohydrates

- Include *sugars* such as glucose, fructose and sucrose.
- **Limit how many simple carbohydrates you eat** because they don't add many vitamins or minerals to your diet and they have lots of calories that contribute to weight gain.
- Examples of foods containing simple carbohydrates include candy, soft drinks, cake, white bread, and cookies.

What do carbohydrates do for your body?

Carbohydrates provide the **body's most important source of energy**.

Carbohydrates are **high-quality fuels** because it takes little effort to release their energy.

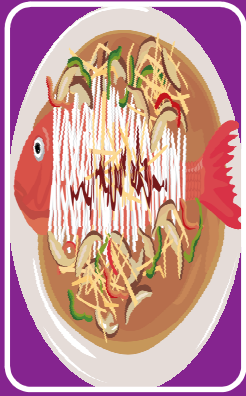
Foods with complex carbohydrates also **provide the body with fiber**. A diet low in fiber may contribute to colon cancer.

What if you have too little or too many carbohydrates?

A diet **low in carbohydrates** can result in the body having **too little energy**. Low energy levels can make you tired and less alert mentally.

Eating **too many simple carbohydrates** can result in **obesity**. Carbohydrates are turned to energy, as the body needs it. Excess carbohydrates are stored as fat.

# Nutrients: PROTEINS



## What do proteins do for your body?

- Proteins are made up of amino acids that the body uses to make skin,
- muscle and bone.
- The body requires 20 amino acids for good health.
  - Of these, 11 can be produced within the body itself.
  - The remaining 9 are called essential amino acids, because it's essential to include them in your diet.
- The body can't store amino acids, so it's important to eat some protein almost daily.



## How can you get protein in your diet?

- Examples of foods with protein include meat, chicken, fish, eggs, dried beans and nuts.
- Food that supplies all 9 essential amino acids is called a complete protein.
- Almost all proteins from animal sources are complete, while plant protein sources are often incomplete.
- People who don't eat animal protein can combine sources of plant proteins to be sure they get the essential amino acids. For example, beans and rice, a common meal throughout the world, form a complete protein when eaten together.



## What if you have too little or too much protein?

- Most Americans eat more protein than the body needs.
- Only about 10-15% of your calories should come from proteins.
- If you don't get enough proteins from the food you eat it may cause insufficient development of bones and muscles, and problems related to skin tone.
- There is no evidence that eating excessive amounts of protein will build more or stronger muscles. In fact, eating large amounts of protein may contribute to weight gain because many foods high in protein are also high in fats, which can increase risk of hypertension, high cholesterol, heart disease and diabetes.

# Nutrients: *FATS*

What do fats do for your body?

- Fats are essential:
  - For healthy skin and hair, normal growth, nerve function, and production of hormones.
- To allow the body to absorb certain vitamins during digestion.
- The body needs a certain amount of fat to:
  - Insulate against cold, provide energy for muscles, provide a layer of padding between skin and muscle, and protect internal organs.
  - Also serves as a backup energy when the body doesn't have enough carbs.

What foods have fat?

- A trace of fat is found in almost all foods.
- Examples of foods with fats include meat, fish, dairy products, nuts, and chocolate.
- Many foods, such as potatoes, have little or no fat naturally, but become high in fat when cooked in oil - e.g. french fries and hash browns.

What if you have too little or too much fat in your diet?

- Too much fat can contribute to many health problems including obesity, heart disease, diabetes, and hypertension.
- Only 20-30% of your calories should come from fats.
- Some fats are healthier than others. Avoid "transfats", and eat fats like olive oil and canola oil.

# Nutrients: MINERALS

## Minerals play a vital role in nutritional health

- Minerals are found in almost all foods.
- Vegetables, fruits and grain products are particularly good sources.
- A balanced diet with a variety of foods can help prevent mineral deficiency problems.
- Common minerals include calcium, sodium, potassium, iron, iodine and zinc.

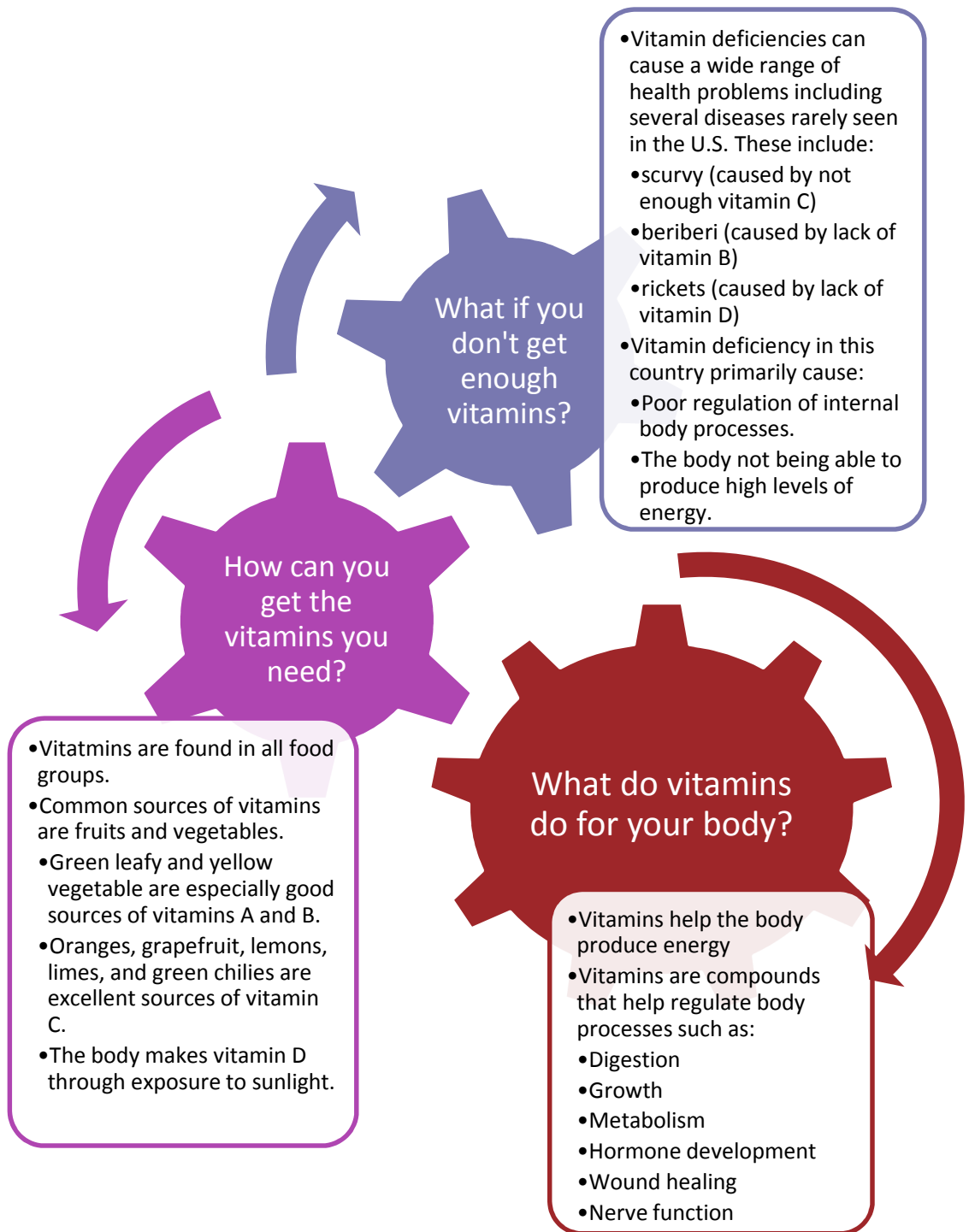
## What do minerals do for your body?

- Minerals are important for growth and maintenance of body structures.
- Minerals help regulate metabolism.

## What if you get too little or too many minerals?

- Having too few minerals can affect all body systems including the skeletal, cardiovascular, respiratory and reproductive systems.
- Iron deficiency anemia, a condition fairly common in teenage girls, results in a decrease in the number of red blood cells.
- Not getting enough calcium restricts the proper development of bones and results in brittle bones later in life.
- Too many minerals in your diet may be harmful.
  - For example, if you drink a lot of carbonated sodas, the high level of phosphates actually interferes with calcium metabolism and may weaken your bones.

# Nutrients: VITAMINS



# Nutrients: WATER

Nearly all foods contain water - Some are up to 90% water. Beverages, fruit And vegetables are major sources of water.

The body loses about 1 quart of water each day. To replace body fluids, experts recommend drinking 8 or more glasses of water daily, instead of drinking soda, coffee, juice or other beverages.

## What does water do for your body?

- Water is an essential nutrient that makes up 50-75% of your body weight. Water is so important that your body can't live for more than a few days without it.
- Water assists in digestion and respiration.
- Water helps carry nutrients and oxygen throughout the body.

## What if you have too little or too much water?

- Not drinking enough water can compromise all of the body's systems
- Water allows the body to:
  - Use water-soluble vitamins.
  - Carry oxygen in the blood.
  - Regulate body temperature.
- When water deficiency is severe, the body systems shut down and death occurs.
- Most people do not drink enough water and drinking too much water causes few problems.
- Some experts believe that large amounts of water may dilute and wash water-soluble vitamins from the body.