

## Unit 4 Lesson 2 What are Nutrients?

Food is a physical need that is necessary for life. The quality of food in a diet affects physical and mental well being. Nutrition is part of the digestive process. Good nutrition is necessary for many body functions. A well-balanced diet and the right number of calories are needed.

Foods contain nutrients. A nutrient is a substance that is ingested, digested, absorbed, and used by the body. Nutrients are grouped into six types. They are: proteins, fats, carbohydrates, water, vitamins, and minerals. You need to eat a variety of foods in order to stay in shape and get the proper nutrients.

Look at the Food Guide Pyramid as you read through this information to see where the nutrients are placed on the pyramid.

### Proteins

Proteins are made up of twenty amino acids or building blocks that are linked together in different ways. Your body can make half of its amino acids but the other half are from special foods. Different proteins serve different functions. They help form parts of the structure of our muscles, hair, skin, nails, connective tissue, and glands. The main use of protein is to help build working body tissue.

### Fats

Fats supply the body with energy and are a major source of calories. It is not good to eat too many fatty foods because your body may not burn it in activity and then it will be stored as fat. If you have too much fat you will become overweight. Fats are necessary for growth. They supply the tissue and cells with essential fatty acids. Fats also help make you feel full. Foods with fats include: beef, poultry, milk, butter, and cheese.

### Carbohydrates

Carbohydrates are composed of starches and sugars. Carbohydrates that are not used in energy are stored in the body and changed into fat.

### Vitamins

Vitamins are nutrients the body needs to stay alive and stay healthy. Vitamins are found in special foods. Each vitamin has a certain job. No vitamin can do the job of another. That's why you should eat a variety of foods so you can get a variety of vitamins in your body.

**Vitamin A** helps vision, teeth, skin, tissue growth and repair. This vitamin is found in dark green and yellow veggies, cantaloupe, eggs, and liver.

**Vitamin D** helps your teeth and bones. It's found in milk, eggs, butter, salmon, and tuna.

**Vitamin E** helps in the production of red blood cells, muscles, and other tissues. You can find it in vegetable oil, dried beans, margarine, whole-grain breads and cereals.

**Vitamin K** helps with blood clotting and metabolism. You will find this vitamin in pork, beef, dark green leafy veggies, cauliflower, tomatoes, peas, and carrots.

**Vitamin B1 (Thiamine)** works to release energy from carbohydrates. It also helps with the growth of tissue, maintains health of heart, nervous system, muscles and intestines. Here are some of the foods that contain thiamine are: eggs, lean pork, plums, prunes, whole-grain bread and cereals, green vegetables, and raisins.

**Vitamin B2 (Riboflavin)** the skin and body use of oxygen. It's found in dark green leafy veggies, all dairy products, eggs, broccoli, lean meat, salmon, and whole grain breads and cereals.

**Vitamin B3 (Niacin)** – works the same as B1 and B2 and is found in the same foods.

## **Minerals**

Minerals are natural substances found in the earth. There are at least fourteen different minerals that are necessary for human life. A balanced diet will help you get these important minerals. Minerals like calcium and phosphorus help build teeth and bones. Iron builds red blood cells. Minerals also help control activities of cells and organs. Scientists can not measure how many minerals the body needs but they do know that without minerals you cannot survive.

## **Water**

The last nutrient on the list is water and not only is it an essential nutrient but a very important nutrient. Did you know that seventy-five percent of your body is water? Water is necessary for blood circulation, carrying nutrients to cells, getting rid of waste, and controlling body temperature. Most foods contain some water but fruits and vegetables are especially full. You should always drink a lot of water, eight glasses a day is recommended!