

## Chapter 6: Nutrition - Healthful Eating

Objective



### Objective

- **Identify the nutrients** needed for optimum health.
- **Plan a healthful diet.**
- **Make changes in your diet** to reduce your risk of cancer.

The popular: “**you are what you eat**” is verified by medical research. Diet or the kinds of food you regularly eat has a holistic effect on your health.

The  
Importance of  
Nutrients

### 6.1 The Importance of Nutrients

A healthful diet helps you perform well in work. It provides the energy you need for your favorite sport activities. It is essential for normal growth and development, normal function of body organs and systems, repair of body tissues, and resistance to infection and disease.

Nutrients in  
Food



Proteins

### 6.2 Nutrients in Food

There are six main kinds of nutrients in food. These are proteins, carbohydrates, fats, vitamins, minerals and water.

- **Proteins:**

**Proteins are needed for growth**, development and repair of body tissues. Proteins are made of small units called amino acids. **Your body needs twenty – two amino acids. Fourteen** of these amino acids can be **produced in your body**. The other eight are called essential amino acids and **must be obtained from the food you eat**. The proteins in food of animal origin are known as complete proteins, i.e., contain all eight of the essential amino acids. The proteins in foods of vegetable origin are known as incomplete proteins i.e. they lack one or more essential amino acids. Complementary proteins are proteins that are combined to provide the eight essential amino acids.

## Carbohydrates

- **Carbohydrates:**

Carbohydrates are **chemical substances that are the main source of energy for your body**. There are **two main types of carbohydrates – starch and sugars**. Because of their chemical structures, starches are called complex carbohydrates and sugars are simple carbohydrates.

## Fats

- **Fats:**

Fats are **chemical substances that provide additional energy and help your body store vitamins A, D, E, K**. Fats help the body absorb vitamin D, which is needed for calcium to be used in the formation of bones, teeth and other tissues. There are two kinds of fats. **Saturated fats** from foods of animal origin and are usually in solid form at room temperature. Saturated fats are the starting material for the body's production of cholesterol. **Unsaturated fats** are obtained from foods of vegetable and are usually liquid at room temperature.

## Vitamins

- **Vitamins:**

Vitamins are substances in food that help chemical reactions take place in the body. Vitamins are divided into two types. Water soluble vitamins and fat soluble vitamins.

- Water soluble vitamins are easily dissolved and cannot be stored in the body. When there is an excess, these vitamins are excreted in the urine. Vitamin B complex and vitamin C are water soluble vitamins. Your body needs a fresh supply of these vitamins daily. They are measured in milligrams.

- Fat soluble vitamins are vitamins that can be stored in the body. The liver is the main storage organ for fat soluble vitamins. An excess of these vitamins is associated with headache, stomach upset and fatigue. Fat soluble vitamins are measured in International Units (IU).

## Minerals

- **Minerals:**

5% of your body weight is made up of minerals. Minerals are nutrients that regulate many of chemical reactions in your body. The seven minerals found in the largest amounts are calcium, chlorine, magnesium, phosphorus, potassium, sodium and sulfur. Also iodine, iron and zinc are of importance.

## Water

- **Water:**

Although water is not a food, it is considered a nutrient. Water makes up about 60% of your body weight and is involved in all body processes. Your body needs two liters of water each day. Balance is maintained with the intake of water and the output of urine and perspiration.

## 6.3 Planning a Healthful Diet

### Goals

**1**

Plan to reach the **seven diet goals**:

**Goal 1: eat a variety of food.** There are four healthful food groups; milk, meat, fruit – vegetable, and grains. A fifth group, the combination group contains ingredients from more than are food group and supplies the same nutrients as foods they contain. The others food group, contain foods that are high in calories and low in nutrients. Usually high – calorie foods contain processed sugars and saturated fats. A calorie is a measure of the energy value of foods.

**2**

**Goal 2: maintain your desirable (ideal) weight.** Remember, ideal weight includes not only your weight but what proportion of your weight is lean or fat tissue. Too much body fat increases likelihood of cardiovascular diseases and diabetes.

**3**

**Goal 3: avoid eating too much fat, saturated fat and cholesterol.** A heavy meat / fat diet are related to an increased incidence of breast, bowel, and colon cancers.

**4**

**Goal 4: eat foods with adequate starch and fiber.** A high-fiber diet may reduce the risk of colon and rectal cancer.

**5**

**Goal 5: avoid too much sugar.** A high-sugar diet increased the likelihood of tooth decay and heart disease.

**6**

**Goal 6: avoid too much sodium.** Eating too much sodium is related to an increase in heart disease and high blood pressure. This is especially true for persons who have inherited a tendency for those diseases.

**7**

**Goal 7: avoid alcohol.** When someone – drinks alcohol, vitamins in the body can be depleted. Alcohol is a harmful drug that destroys brain cells and harms the liver, kidneys, heart, esophagus, stomach, and blood vessels.

**N.B.: break fast is important.** It helps keep you mentally alert. A healthful breakfast is needed to provide a uniform level of energy throughout the morning. **It would supply at least one-fourth of your daily nutrients and calories.**

## 6.4 Diet and Cancer

### Diet and Cancer

The following guide lines for diet may prove helpful in avoiding cancer.

- **Avoid obesity.** People, who have 40 percent over weight, have high risk of colon, breast and uterine cancers.
- **Cut down on total fat intake.** A diet high in fat may be a factor in the development of certain cancers like breast, colon and prostate.
- **Eat more high-fiber foods.** Studies suggest that these diets may help to reduce the risk of colon cancer.
- **Include foods rich in vitamins A and C in your daily diet.** These foods may help lower the risk for cancers of the larynx, esophagus, and the lung.
- **Include cruciferous vegetables in your diet** (e.g. cabbage, broccoli and cauliflower). They protect against cancer.
- **Eat limited amounts of salt – cured, smoked, and nitrite – cured foods.**
- **Avoid alcohol and cigarette smoking or chewing tobacco.** As they increase the incidence of cancers of the mouth, larynx, throat, esophagus and stomach.