

## **Chapter2: Components of Food**

- **Nutrients:** Food substances that provide nourishment to the body.
- The major nutrients in our food are carbohydrates, proteins, fats, vitamins and minerals. In addition, food also contains dietary fibres and water.
- Carbohydrates and fats mainly provide energy to our body.
- Carbohydrates : cellulose, starch and sugar.
- **Carbohydrates:** These are energy-giving compounds. There may be simple carbohydrates or complex carbohydrates.
- Sources of fats : animal fats and vegetable fats.
- **Fats:** These are very high energy-giving compounds. They produce greater amount of energy than carbohydrates.
- Carbohydrates and fats are Energy giving food.
- **Minerals:** These are elements required by the body in small amounts. It is essential for growth and development of bones, teeth and red blood cells.
- **Proteins:** These are body-building foods. They help in growth of the body.
- **Vitamins:** These are organic substances that protect the body from diseases.
- **Roughage:** It is the dietary fibre present in the food. It facilitates regular movement of the bowels and prevents constipation.
- Dietary fibre and water are not food.
- **Balanced diet:** It provides all the nutrients that our body needs, in right quantities, along with adequate amount of roughage and water.
- **Deficiency Diseases:** These are the diseases caused due to the lack of required nutrients for a long period in the diet.
- **malnutrition** : when a person eats enough of food but his diet is unbalanced, it is known as malnutrition.
- **Undernutrition** : A person not eating sufficient food to maintain good health is suffering from undernutrition.

**Some Nutrients Deficiency Diseases are:**

1. **Protein: Kwashiorkor** - Stunted growth, thinning of legs, protruding belly.
2. **Protein and Carbohydrates – Marasmus** – Complete/partial arrest of growth, lack of energy.
3. **Vitamin D and calcium : Rickets** – Bowed legs, bent spine, deformed bones and joints.
4. **Vitamin C: Scurvy** – Bleeding and swelling of gums, weakness.
5. **Iodine: Goitre** – Enlargement of thyroid gland, retarded growth.
6. **Iron – Anaemia** – Fatigue, loss of appetite, pale skin.
7. **Vitamin K : -Bleeding disease-** delay in blood clotting leads to excess bleeding.
8. **Beri-beri : - Vitamin B<sub>1</sub>** . weakness in muscles, little energy to do work, paralysis
9. **Night blindness - Vitamin A** - No vision at night or in dim light.