

Chapter 2

Components of Food

COMPONENTS OF FOOD/ WHAT ARE THE COMPONENTS OF FOOD

Our food contains these important components:

1. **Carbohydrates:** Carbohydrates are the energy giving food. Main sources of Carbohydrates are rice, wheat and potato.
2. **Protein:** Proteins are the body building food, and used to make teeth and bones. Protein is mainly found in pulses, eggs and milk.
3. **Fats:** Fats provide more energy than carbohydrates. Some sources of fat are milk and mustard oil.
4. **Vitamins and Minerals:** Vitamin and minerals are known as protective food as they help to improve eye sight, healthy gums and growth of bones and teeth.

SOURCES OF DIFFERENT VITAMINS AND MINERALS

1. **Vitamin A:** Vitamin A is good for our skin and eyes. Carrot, papaya and milk are its rich source.
2. **Vitamin B:** Rice and liver are its rich sources.
3. **Vitamin C:** Vitamin C is good for immunity to fight different diseases like bleeding gums. Citrus fruits like lemon, orange and tomatoes are its sources.
4. **Vitamin D:** It helps to make our bones and teeth strong. Sunlight, egg, butter and fish are its rich sources.
5. **Iodine:** Rich sources of iodine are salt and fish.
6. **Iron:** Liver and Spinach are its rich sources.
7. **Calcium:** Milk and Egg.
8. **Phosphorus:** Banana and Rice

TEST OF CARBOHYDRATES/STARCH

Take a small quantity of a food item. Put 2-3 drops of dilute iodine solution on it. Observe if there is any change in the colour of the food if it turned blue-black then it shows presence of Carbohydrates/Starch.

TEST OF PROTEIN

Take a small quantity of a food item. Then make a paste of it or powder it. Put some of this in a clean test tube, add 10 drops of water to it and shake the test tube. Now, using a dropper, add two drops of solution of copper sulphate and ten drops of solution of caustic soda. See the tube after some time if it shows violet colour then protein is there.

TEST OF FAT

Take a small quantity of a food item. Wrap it in a piece of paper and crush it. Take care that the paper does not tear. Now, straighten the paper and observe it carefully. An oily patch on paper shows that the food item contains fat.

BALANCED DIET/ WHAT IS BALANCED DIET

Diet is food that we normally eat in a day is called our diet. Balanced diet refers to daily food that contains all the nutrients that are needed for our body in right amount.

OBESITY/WHAT IS OBESITY/HOW OBESITY OCCURS

Obesity occurs due to excessive eating or eating of fat rich or sugar rich food. It leads to fattening of body and is called obesity.

DEFICIENCY DISEASES

Diseases occurred by the deficiency (lack) of any vitamin or mineral is known as deficiency disease. It happens if we don't eat any vitamin or mineral for long period of time. For instance eating less Vitamin A can result in Night blindness.

Vitamin/Mineral	Deficiency disease/disorder	Symptoms
Vitamin A	Loss of vision	Poor vision, loss of vision in darkness (night), sometimes complete loss of vision
Vitamin B1	Beriberi	Weak muscles and very little energy to work
Vitamin C	Scurvy	Bleeding gums, wounds take longer time to heal
Vitamin D	Rickets	Bones become soft and bent
Calcium	Bone and tooth decay	Weak bones, tooth decay
Iodine	Goiter	Glands in the neck appear swollen, mental disability in children
Iron	Anaemia	Weakness

NCERT QUESTION-ANSWERS

1. Name the major nutrients in our food.

Answer. The major nutrients in our food are

- Carbohydrates
- Proteins
- Fats
- Vitamins
- Minerals

2. Name the following:

(a) The nutrients which mainly give energy to our body.

(b) The nutrients that are needed for the growth and maintenance of our body.

(c) A vitamin required for maintaining good eyesight.

(d) A mineral that is required for keeping our bones healthy.

Answer.

- (a) Carbohydrates
- (b) Proteins
- (c) Vitamin A
- (d) Calcium

3. Name two foods each rich in:

(a) Fats

(b) Starch

(c) Dietary fibre

(d) Protein

Answer.

- (a) Ghee, oil, butter, cheese, chocolates
- (b) Potatoes, rice, beans, peas
- (c) Carrot, cabbage, carrot, split peas
- (d) Milk, egg, fish, meat, pulses

5. Fill in the blanks:

- (a) _____ is caused by deficiency of Vitamin D.
- (b) Deficiency of _____ causes a disease known as beri-beri.
- (c) Deficiency of Vitamin C causes a disease known as _____ .
- (d) Night blindness is caused due to deficiency of _____ in our food.

Answer.

- (a) Rickets
- (b) Vitamin B1
- (c) Scurvy
- (d) Vitamin A

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