

Chapter- 2

Food and Health

STUDY NOTES

Let's Learn

Nutrients: Nutrients are substances that the body needs to live, grow and be healthy.

Types of nutrients:

- **Carbohydrates:**
 - These are energy giving food and give quick energy to the body. Sources-Rice, wheat, noodles, potato, sugar, etc.
- **Proteins:**
 - These are body-building foods that help in making muscles, blood and skin.
 - They also help in repairing our body when it is damaged. Sources-Milk, eggs, pulses, nuts and so on.
- **Fats:**
 - These are stored in our body and we can use them later to get energy.
 - They also help to keep our body warm.
 - They provide us twice as much energy as that provided by the same amount of carbohydrates. Sources-Butter, oil, ghee, nuts, cheese and so on.
- **Vitamins and Minerals:**
 - Vitamins are needed by our body in small amounts to stay healthy and fit.
 - Vitamins A, B, C, D, E and K are examples of vitamins. Sources-Fruits and vegetables
 - Minerals are also needed by our body in small amounts to stay healthy and fit. Iron, calcium, phosphorus are examples of minerals. Sources- Milk products, bean, meat and fish.
- **Water:**
 - Almost two third of our body is made up of water.
 - It is the main part of our blood.
 - We cannot live without water.
- **Roughage:**
 - It is that part of the food that cannot be digested by the body.
 - It adds bulk to the food and helps our muscles to push the food through our intestines. Sources-All kinds of plant foods.

A Balanced Diet:

- A diet that contains the right amount of all nutrients as well as water and roughage is called a balanced diet.

Keep Fit:

- Posture is the position in which we hold our body when we sit, stand or move.

- We must sit and stand straight.
- We must walk upright.
- Correct posture gives a graceful appearance to our body and also improves flexibility of our joints.

Enough Rest:

- Proper rest and regular hours of sleep relax our muscles, give our body the much-needed rest.
- We feel fresh and ready to work again.
- we can work more efficiently.
- Sleep also gives time to the body for the growth and repair of body cells.

Disease:

- An abnormal condition in which the body is not able to function properly.
- The disease is caused due to the lack of a particular minerals or vitamins in the body is called deficiency disease.

Types of disease:

- **Infectious or Communicable Diseases:** These are the diseases that can spread from one person to another. Example-Chickenpox, corona, measles and so on.
- These diseases are spread by microbes or germs called bacteria, protozoa, viruses.
- These germs spread through coughing, spitting or sneezing.
- Bacteria cause diseases like plague, tuberculosis, typhoid, pneumonia and meningitis.
- Protozoa cause disease like malaria and amoebic dysentery.
- Viruses cause diseases like the common cold, polio, chicken pox and measles.

Infectious or communicable diseases can spread by following means:

- through direct contact
- through infected food and water
- through the air we breathe
- through insects
- through carriers

Prevention of Infectious or Communicable Diseases:

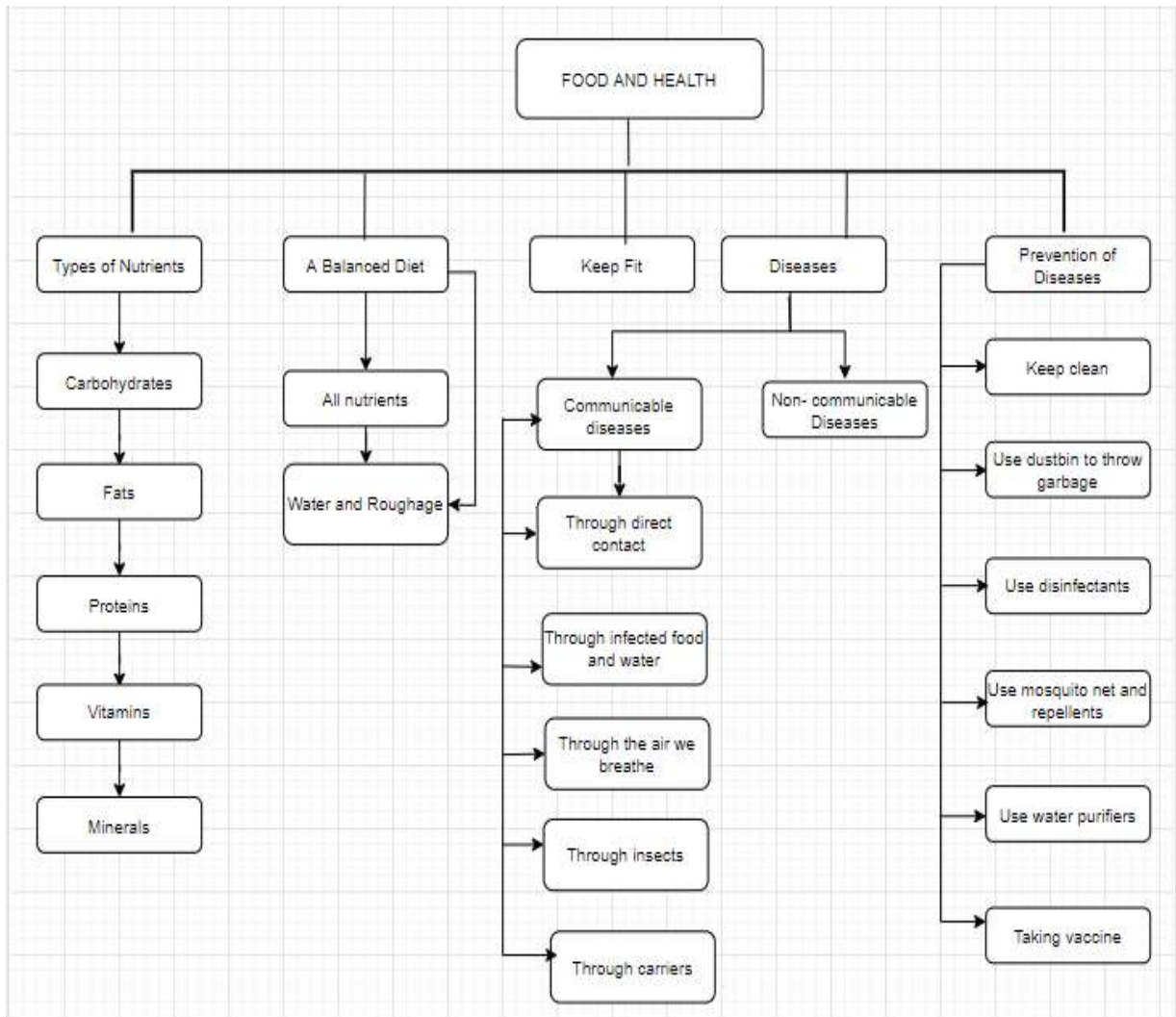
- Keep yourself and your surroundings clean.
- Always put garbage in covered bins.
- Use disinfectants to clean floors.
- Use mosquito repellents and mosquito nets.
- Use a water purifier to kill germs.
- By taking vaccine against that disease.

• **Non-infectious or Non-communicable Diseases:**

- These are the diseases that do not spread from one person to another
- These diseases are caused due to the lack of the right kind of food in our diet.
- Example-Allergy, obesity, diabetes, asthma, night blindness, Beri-Beri, scurvy, rickets and anaemia.

Prevention of Non- Infectious Diseases:

- Take nutrients in required quantities.
- Do exercise regularly
- Take sufficient rest
- Always be in good posture



Let's Know More

I. Choose the correct answer.

1. Deficiency of vitamin C causes dengue/ night blindness/ scurvy.
2. Beriberi is a disease caused by the deficiency of vitamin B1/ vitamin C/ Vitamin A.

3. Ricket/ anaemia/ malaria is a disease in which the bones become soft.
4. Deficiency of iron/ iodine/ calcium in the body causes goitre.

Let's Do

A. Tick the correct answer.

1. To stay healthy our body needs
 - a. A balanced diet.
 - b. Books.
 - c. Bread.
 - d. only milk.
2. Which of the following is a non-communicable disease?
 - a. Chicken pox
 - b. Beriberi
 - c. common cold
 - d. Measles
3. This disease is caused by a virus.
 - a. Typhoid
 - b. Malaria
 - c. Meningitis
 - d. chicken pox
4. The spread of communicable diseases can be prevented by
 - a. Spitting
 - b. Coughing
 - c. keeping clean
 - d. having medicines
5. Vaccination can protect against diseases like polio, measles and
 - a. AIDS
 - b. Malaria
 - c. Mumps
 - d. Fever

B. Complete the table.

NUTRIENTS	FOUND IN			
Carbohydrates				
Protein				
Vitamin A				
Vitamin C				
Iron				

C. Match the columns.

NUTRIENT	DEFICIENCY DISEASE	SYMPTOMS OF DISEASE
1. Vitamin A	goiter	bones become soft
2. vitamin B1	night blindness	a gland in the neck region swells up
3. Vitamin C	rickets	patient cannot see in dim light

4. vitamin D	scurvy	Affects the nervous system
5. Iodine	Beriberi	bleeding gums

D. Fill in the blanks.

1. Our body needs _____, protection from diseases, regular exercise and _____ to keep fit.
2. Our food should have enough _____ to get rid of undigested food.
3. we must play _____ games to keep her body fit.
4. _____ and _____ are caused by bacteria.
5. _____ is a virus that attacks the immune system of the patient and leads to death.

Understand and Answer

E. Write short answers.

1. What is a deficiency disease?
2. Name a disease caused by the lack of iron in food.
3. What is a communicable disease?
4. Which diseases are caused by eating contaminated food?
5. Name three diseases for which you have been vaccinated.

F. Answer the following questions.

1. How do houseflies spread disease?
2. What precautions would you take to check the spread of malaria?
3. Explain two ways of controlling communicable diseases.
4. Which steps would you take to prevent the spread of germs from a sick person?
5. What is meant by pasteurization of milk?
6. Raju has bleeding gums and swollen joints. name the disease he is suffering from. What is the cause and remedy of this disease?

Teacher's Note

- Make chart showing the following information about the disease "Corona"
 - Causes of the disease
 - Symptoms of the disease
 - Prevention of the disease

Improve Your GK

- White blood cells help our body to fight against diseases.
- The WHO (World Health Organization) is the organization that is concerned with public health.
- World Health Day is celebrated on April 7th.

Answer Key

I.

1. Scurvy
2. vitamin B1
3. Rickets
4. Iodine

A.

1. a balanced diet
2. Beriberi
3. Chicken pox
4. keeping clean
5. mumps

B.

NUTRIENTS	FOUNDIR			
Carbohydrates	Cereals	Sweet potato	Sugar	Banana
Protein	Pulses	Milk	Eggs	Meat
Vitamin A	Green leafy vegetables	Mango	Papaya	Tomato
Vitamin C	Citrus fruits	Amla	Tomato	Green leafy vegetables
Iron	Dates	Apples	Spinach	Meat

C.

NUTRIENT	DEFICIENCY DISEASE	SYMPTOMS OF DISEASE
1. Vitamin A	night blindness	patient cannot see in dim light
2. vitamin B1	beriberi	affects the nervous system
3. Vitamin C	Scurvy	bleeding gums
4. vitamin D	rickets	bones become soft
5. Iodine	goiter	a gland in the neck region swells up

D.

1. A balanced diet, enough rest
2. roughage or fiber
3. Outdoor
4. Plague and typhoid
5. HIV

E.

1. A disease caused due to the lack of particular minerals or vitamins in the body is called deficiency disease.
2. Anaemia is a disease caused by the lack of iron in food.
3. A disease that can spread from one person to another person is called a communicable disease.
4. Typhoid, cholera, diarrhea, polio and jaundice are caused by eating contaminated food.
5. Measles, mumps, hepatitis are diseases for which we have been vaccinated.

F.

1. Houseflies usually feed themselves on rotting and decaying matters. After feeding itself in the dirty places it comes and sits over our food and contaminates it. When we consume this contaminated food, we get infected with disease. In this way, a housefly spread disease.
2. Precautions that we would take to check the spread of malaria are:
 - a. We should stop breeding off mosquitoes by not allowing water to stagnant at the place.
 - b. We should destroy mosquito larva by spraying oil on the surface of water in tanks and ponds.
 - c. We should use a mosquito net or mosquito repellent at night.
 - d. Drains must be covered.
3. Ways of controlling communicable diseases are:
 - a. Germs of certain diseases stay on articles like cloth, comb, toys etc used by a patient. all such items Should be disinfected or boiled to kill the germs.
 - b. Children suffering from any communicable disease so should stay away from school till they are fully recovered.
4. The steps we would take to prevent the spread of germs from a sick person are as follows:
 - a. Keep yourself and your surroundings clean.
 - b. Always put garbage in covered bins.
 - c. Use disinfectants to clean floors.
 - d. Use mosquito repellents and mosquito nets.
 - e. Use a water purifier to kill germs.
5. Heating the milk at a high temperature and quickly cooling it to kill her full germs is known as pasteurization of milk.
6. Raju has bleeding gums and swollen joints. He must be suffering from scurvy. Scurvy is caused by the deficiency of vitamin C. It can be cured by eating citrus fruit, amla, tomato, green leafy vegetables come a potato and sprouted grains and pulses.

