

### We shall learn :

- Nutrients
- Balanced diet
- Importance of water
- Exercise
- Rest and sleep

# 3

# Food and Health



## WARM UP

Which of the following are not the sources of fats?

Oil

Ghee

Butter

Rice

Fruits

We all need food in order to stay alive. Food provides us energy for growth and repair of the body, for normal body functions like heartbeat, breathing, and for activities such as walking, reading, swimming or playing. It also protects us from diseases and keeps us healthy.

## Nutrients

The food you eat each day, makes up your diet. All food items have **nutrients**. Nutrients are useful substances present in the food which the body needs. Carbohydrates, fats, proteins, vitamins and minerals are different types of nutrients. Your body needs all these nutrients.

## Carbohydrates

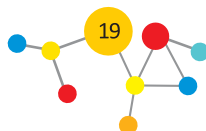
Carbohydrates are sugar and starch. They give energy to the body. So they are called **energy-giving foods**. Bread, rice, fruits and fruit juices, honey and corn are some sources of carbohydrates.

## Fats

Like carbohydrates, fats too provide energy to the body. Excess carbohydrates are converted into fat and stored in the body. They contain twice the amount of energy as compared to carbohydrates. Meat, vegetable oil, milk, butter, cheese, ghee, cream and dry fruits are some sources of fats. Excess intake of fatty foods can lead to **obesity**, which is harmful for our body. Obesity can also cause heart (coronary) diseases and diabetes.

## Proteins

From the time you were born to the age of 18 to 20 years, your body will grow. Proteins help the body to grow and also in healing injured parts of the body. Therefore, proteins are



called **body-building foods**. Meat, fish, eggs, milk, cheese, beans, pulses, peas and nuts are some sources of proteins.



food rich in proteins



food rich in carbohydrates



food rich in fats

## Vitamins and Minerals

A balanced diet should contain vitamins and minerals. They help your body to fight against diseases and to keep you healthy. They also help the body to perform all the functions normally.

**Vitamin A :** It is needed for growth and repair of bones, teeth and skin. It also helps in proper functioning of the eyes.

**Vitamin B :** It is needed for energy, growth and healthy skin.

**Vitamin C :** It helps in the formation of blood, healing of wounds and keeps the gums healthy.

**Vitamin D :** It is needed for the proper growth of bones. This vitamin is also made by the body in the skin with the help of sunlight.

**Vitamin E :** It keeps the skin healthy. Its sources are nuts like almonds, egg, wheat grains, vegetable oils, green leafy vegetables.

**Vitamin K :** It is required for normal blood clotting. Its sources are green leafy vegetables, wheat, cheese, egg yolk.

Vitamins can be classified as fat-soluble vitamins (vitamins A, D, E and K) and water-soluble vitamins (vitamin B and C). Foods rich in different vitamins are shown below.



Vitamin A



Vitamin B



Vitamin C



Vitamin D

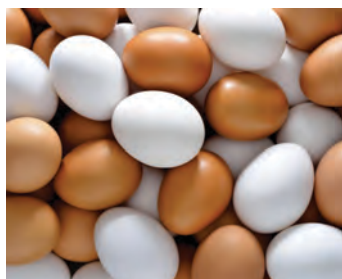
**Minerals** : Calcium is the most plentiful mineral found in the body. Milk and milk products such as cheese and buttermilk are rich in calcium. Fish, dry beans, wheat and nuts are also good sources of calcium. Calcium helps your body in building strong bones, teeth and muscles. It is a body-building mineral. It is also needed in the formation of blood.



food rich in calcium

### Iron

Iron is a part of your blood. It is needed by your body to make blood. Food items like fish, apples, beans, walnuts, cashewnuts, groundnuts, eggs and green leafy vegetables such as spinach are rich in iron.



food rich in iron

### Fibre (Roughage)

Fibre should form an important part of your diet because it helps to carry waste material out of the body. All kinds of fruits, vegetables and seeds have fibre. It keeps your intestines in good working condition.



food rich in fibre

### Balanced Diet

A daily diet should provide all the nutrients in the right amount. Such a diet is called a **balanced diet**. A balanced diet helps your body to grow, function properly and remain healthy. If the diet contains less nutrients, the body becomes weak and if the nutrients are more, it affects the body adversely. It is very important that our diet is balanced.

## An example of a balanced diet :

- 1 glass of milk
- 1 banana
- 3 chapatis with little ghee or butter
- ½ cup cooked vegetables
- ½ cup dal
- ½ cup rice
- ½ cup of raw tomato or cucumber
- ½ cup cooked moong
- ½ an apple



## Importance of Water

Water is essential for life. We can live without food for a few weeks, but can survive only for about 2 to 3 days without water.

We need water because it :

- is a major component of the blood.
- maintains and regulates body temperature.
- lubricates joints.
- helps in digestion.
- purifies blood.
- helps in removing waste products from the body.

## Exercise

Exercise is as important as a balanced diet to maintain a healthy body. Regular exercise improves blood circulation in the body. Playing outdoor games such as football and cricket is another way to stay fit. Yoga, an ancient system of exercise practised in India, is also beneficial.



## Rest and Sleep



After a day's hard work, the body needs rest. This can be done in a number of ways. You can relax by lying down, listening to music, watching television or by reading a book.

Sleep is needed as it gives you the much needed rest. You must have observed that newborn babies sleep most of the day. Adults need 6 to 8 hours of sleep at a stretch to remain healthy.



## Glossary

Nutrients	Useful substances present in the food
Obesity	Excess intake of fatty foods can lead to a condition of fatness
Roughage	Fibre present in food
Balanced diet	A diet should contain all the nutrients in the right amount

## Question Hour-I



**A** Tick (✓) the correct answer :

- Leafy vegetables like spinach are rich in :  
 (a) proteins and fats  (b) iron  (c) carbohydrates
- Vitamin D present in milk, butter, eggs and fish :  
 (a) improves eyesight.  (b) makes you fat.  (c) helps bones to grow strong.
- The vitamin made by the body with the help of sunlight is :  
 (a) D  (b) C  (c) E
- Proteins not only help the body to grow but also help by :  
 (a) giving energy.  (b) healing injured parts.  (c) curing illnesses.

**B** Fill in the blanks with correct words from the box :

*diet, fibre, food, exercise, harmful*

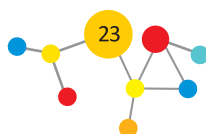
- \_\_\_\_\_ provides us energy for growth and repair of the body.
- The food you eat each day, makes up your \_\_\_\_\_ .
- Obesity is \_\_\_\_\_ for our body.
- All kinds of fruits, vegetables and seeds have \_\_\_\_\_ .
- Regular \_\_\_\_\_ improves blood circulation of the body.

**C** Tick (✓) the correct and (X) the incorrect statement :

- We all need food in order to stay alive.
- All food items do not have nutrients.
- Obesity can cause heart diseases and diabetes.
- Vitamin A helps in the formation of blood.
- We can live without water for a few weeks.

**D** Answer the following questions :

- Name different nutrients present in the food.
- Why are carbohydrates important for us?



3. What is the importance of fats?
4. Proteins need to be present in the food we eat. Why?
5. What is the importance of fibre in your diet?
6. What is a balanced diet?
7. Why do we need water in our daily diet?
8. What is the importance of rest and sleep?

**Think Beyond** HOTS 

Why is regular exercise essential for staying healthy?

**Question Hour-II**



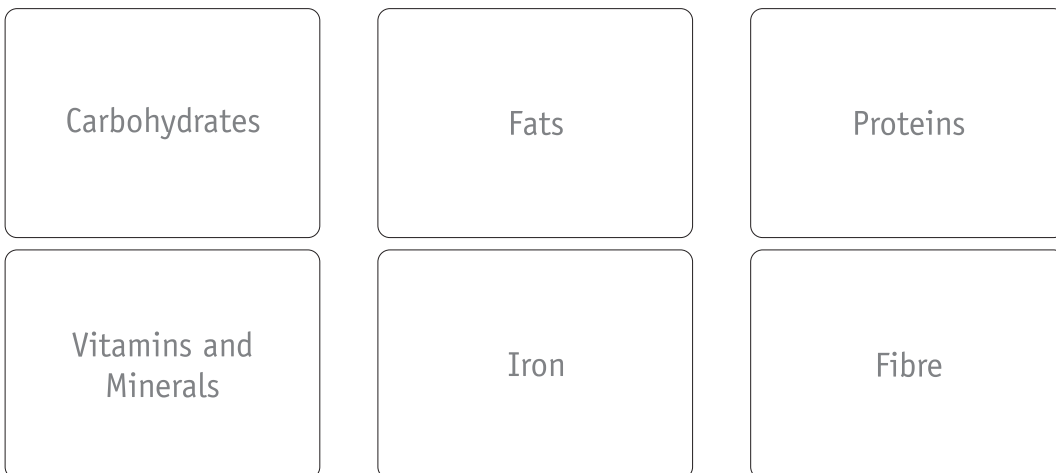
Write four examples of each :

Nutrients	Found in
1. Vitamin C	_____ / _____ / _____ / _____
2. Carbohydrate	_____ / _____ / _____ / _____
3. Iron	_____ / _____ / _____ / _____
4. Vitamin A	_____ / _____ / _____ / _____
5. Protein	_____ / _____ / _____ / _____

**Fun to Drill**



Bring some food items to school and sort them out in different groups. Choose a table in your class where you can have different playcards as shown below :



**Fun to Act**



Prepare a balanced diet chart for a healthy person.

