



Healthy Food to be Healthy

Focus On



- Nutrients
- Balanced Diet
- Absolute Health
- Diseases

Teacher's Aid

- A chart on healthy food.

All living beings need food to live and grow. It gives energy to work to our body. It helps to keep all our body parts functioning properly. People living in different places eat different types of food. Food helps us to maintain our body pressure. We get different materials by various food. Why are some food called junk food?

Nutrients

Some elements that we get from our food are essential for our body. These are called **nutrients**. They give us energy, help us grow and keep our body healthy. Carbohydrates, fats, proteins, vitamins, minerals and fibre are some nutrients.

Carbohydrates

Carbohydrates provide energy to our body to do all kinds of work and body functions. Carbohydrates are essential. We get carbohydrates from bread, cereal, rice and pasta. Fruits and vegetables are also a rich source of carbohydrates.



Sources of Carbohydrates



Sources of Fats

Fats

Fats also provide energy to our body. These get stored in the body under the skin. The body uses these fats later to maintain its temperature and to support internal organs. Foods that are rich in fats include meat, milk, cheese, vegetable oils and nuts.

Proteins

These are the nutrients necessary for growing and repairing our body parts, from skin to bones. Proteins are needed especially for strong muscles. Chicken, fish, beans, eggs, nuts, and dairy products such as milk, yogurt and cheese are rich in protein.



Sources of Proteins



Citrus Fruits are a Rich Source of Vitamin C

Vitamins and Minerals

The substances that are essential for normal functioning of our body are called **vitamins**. They contain carbon and are essential in small quantities. For example, vitamin C is important in maintaining many body parts, including the skin, lips and gums. Vitamin K is needed for blood to clot or form a thick lump or mass to stop bleeding when any body part gets hurt.

The substances that do not contain carbon and are essential in small quantities for the normal functioning of the body are called **minerals**. They consist iron for the blood and calcium for strong bones and teeth. Iodine, magnesium, phosphorous, copper, sodium, potassium and zinc are other minerals that are important for human body.

Fresh fruits and vegetables contains sufficient vitamins and minerals.



Iodised Salt Contains Iodine



Dietary Fibres

Roughage

The substance that are essential to keep our digestive system working well and which are not get digested and absorbed by our body are called **fibres**, **dietary fibres** or **roughage**. Fibres help in throwing out the waste from the body. Some vegetables, fruits and cereals are the main source of roughage.

Water

The body also needs sufficient amount of water. Our body contains two-thirds water, and this water constantly moves around in the body and gets used up. Many of the foods we eat contain water. It makes up most of our drinks as well.



Water

Balanced Diet

Too much or too less of certain foods can make us ill. A diet full of a wide range of foods that provide all the nutrients needed by the body in the right amount is called a **balanced diet**. Several servings of grains, vegetables, fruits, dairy products, meat and beans must be included in our everyday diet.



A Balanced Diet

Absolute Health

Health includes a healthy and fit mind as well as body. It is not about just feeling fine. Exercise, sound sleep and good posture along with a healthy diet are essential for perfect health.



Exercise and Re-creational Activities

Let's Recall

Match the following :

- | | |
|--|-----------------------------------|
| 1. Exercise, good sleep and good posture | (a) rich in fat |
| 2. Roughage | (b) energy to work |
| 3. Meat, vegetable oils and nuts | (c) healthy body and mind |
| 4. Iodine and copper | (d) digestive system working well |
| 5. Carbohydrates | (e) minerals |

Diseases

A condition in which we find ourselves not able to perform our daily routine. This is the condition of disease in which one or more of our body parts don't work. There are some specific signs through which a disease can be identified are known as **symptoms**. Injuries such as bruise, cuts and sprains are not considered as diseases. There may be various reasons for diseases. Lack of proper food may also cause diseases. Sometimes, it occurs because of the consumption of harmful substances.

We can classify diseases into two parts :

Non-communicable diseases and communicable diseases.

Non-communicable Diseases

Diseases that don't spread from one person to another are called **non-communicable diseases**.

Non-communicable diseases can be caused by deficiency of vitamins and minerals. These are called **deficiency diseases**.

Dangerous non-communicable diseases such as cancer are caused by bad habits such as smoking. Lack of exercise and intake of too much fatty food causes obesity.

HOTSPOT

Choose the option :

1. Munching throughout the day, playing video games.
2. A balanced diet proper rest and lots of exercise.
3. No exercise, balanced diet and rest.

Deficiency diseases	Caused by the lack of	Sources of the vitamins/minerals
• Scurvy and poor wound healing	Vitamin C	citrus fruits such as strawberry, tomato, broccoli, cabbage, green pepper
• Night blindness and scaly skin	Vitamin A	green leafy and yellow vegetables, liver, egg yolk
• Gastrointestinal problems	Vitamin E	whole grains, dark green vegetables, nuts, legumes
• Rickets	Vitamin D	milk and milk products
• Beri beri	Vitamin B1	green vegetables, cereals, milk
• Goitre	Iodine	iodised salt
• Weakness, bone damage	Phosphorous	dairy products, red meat, poultry, grains
• Anaemia	Iron	spinach, dates, apples, bananas, guavas, pulses, jaggery, meat
• Muscle weakness	Potassium	meats, fruits, vegetables, whole grains

Communicable Diseases

Diseases that can spread from one person to another are called **communicable diseases**. These diseases can spread through air, water and physical contact with others. Some examples of communicable diseases are malaria, common cold and pneumonia. Maintaining a good hygiene and staying clean helps in preventing such diseases.



How Germs Travel

The practices and conditions that help to maintain good health and prevent the spread of disease are called **hygiene**. Brushing teeth twice a day, bathing, wearing clean clothes and eating fresh food in clean plates come under hygiene.

Microbes or germs such as bacteria, protozoa and virus cause communicable diseases. These germs enter the body of a person through the mouth or nose. They may also get into our body through contaminated food and water. They may get into the body through cuts and bruises in the skin as well.

Find Out

Pulse Polio is an immunization campaign that was launched by the Government of India in 1994 to eradicate polio through vaccination. Children of which age group are targeted in Pulse Polio Campaign?

A Step Ahead

1952 : the first effective vaccine against polio was pioneered by Dr Jonas Salk.

1961 : Albert Sabin developed the easily administered Oral Polio Vaccine (OPV).

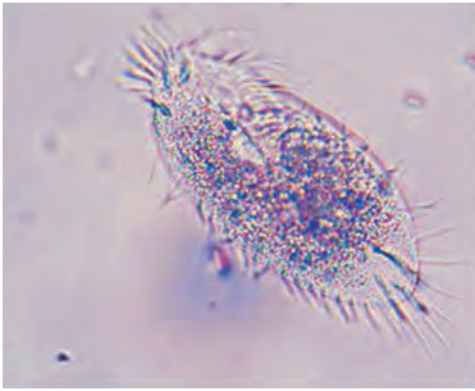
1862 a French chemist and biologist Louis Pasteur proved the germ theory of disease and invented the process of Pasteurisation.

Eating with unwashed and dirty hands or eating in a dirty plate also allows germs to enter our body. Milk from diseased cows can be a source of infection too. Insects or pests such as cockroaches and flies carry germs from sewers and contaminate our food and water. Diarrhoea, typhoid and cholera are caused by bacteria.

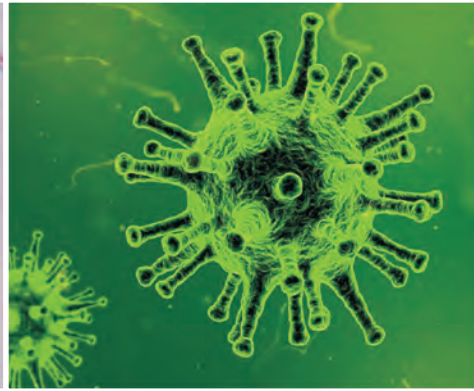
Sometimes a healthy person carries germs of diseases such as dysentery, cholera and typhoid. People who come in contact with the carriers are in danger of catching the disease. Protozoa carried by mosquitoes also spread some diseases. Protozoan which causes malaria is carried by the female anopheles mosquito. The mosquito gets the protozoa by biting an infected person and then transfers them to healthy people.

AIDS is an incurable communicable disease. It is spread by a virus called HIV.

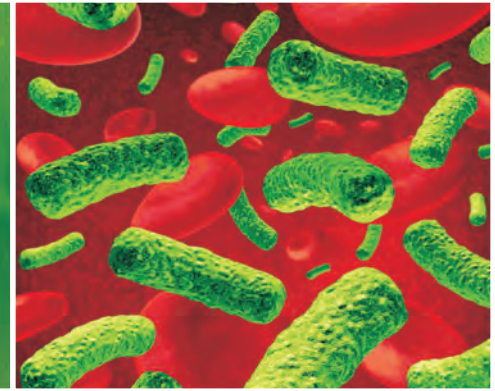
Most vaccinations are given to children when they are very young to build immunity. Immunity is the body's self resistance against diseases. We can prevent many communicable diseases from spreading through vaccination. Diseases such as measles and chickenpox are under control today because of vaccination.



1. Protoza causes diseases such as Malaria, Dysentery and Sleeping Sickness.



2. Virus cause diseases such as Influenza, Common Cold and Chickenpox.



3. Bacteria cause diseases such as Typhoid, Pneumonia and Tuberculosis.

Diseases	Symptoms	Treatment/Preventive Measures
Jaundice	<ul style="list-style-type: none"> • loss of appetite • yellow colouration due to excess bile pigment in the blood • yellow urination • fever 	<ul style="list-style-type: none"> • hepatitis B vaccine • purified water • avoid contact with infected people. • the patient should be given plenty of sugarcane juice.
Chickenpox	<ul style="list-style-type: none"> • fever • fatigue • skin rash 	<ul style="list-style-type: none"> • avoid contact with patients. • maintain personal and environmental hygiene. • maintain good ventilation.
Tuberculosis	<ul style="list-style-type: none"> • Persistent fever • cough, sputum with blood • Fatigue, weight loss, night sweat 	<ul style="list-style-type: none"> • balanced nutrition and adequate rest • good ventilation and environmental hygiene • the patient should not spit here and there.
Influenza	<ul style="list-style-type: none"> • fever, fatigue, cough, sneeze, runny nose, sore throat, muscle ache 	<ul style="list-style-type: none"> • enough rest • balanced nutrition for stronger immunity • good personal hygiene • while sneezing or coughing cover the mouth and nose

Communicable Diseases

Fact Byte

- ❖ Germs in milk are killed by heating it at high temperature for about half an hour and then cooling it down quickly. This method is called pasteurisation.

Flash On

- * The elements that our body gets from the food we eat for energy and growth are called nutrients.
- * Carbohydrates, fats, proteins, vitamins and minerals are these nutrients.
- * A balanced diet contains these nutrients in the right amount.
- * Drinking enough water is also essential.
- * Deficiency of these nutrients may cause some non-communicable diseases.
- * Some diseases spread through virus and bacteria. These are called communicable diseases.

Words to Know

Nutrients	: Substances needed for our body, found in food
Carbohydrate	: The source of energy for our body.
Fats	: The source of energy that is stored by our body.
Proteins	: The nutrients that are needed for building muscles.
Vitamins and Minerals	: Nutrients required in small quantities by the body.
Roughage	: Elements that are essential for our digestive system work well.
Diseases	: A condition in which the body does not work properly.
Non-communicable Diseases	: Diseases that do not spread from one person to another.
Antibiotics	: Substance used to kill organism that cause diseases.
Communicable Diseases	: Diseases that can spread from one person to another
Microbes	: Tiny virus that are the carriers of diseases.

Exercise

A. Tick (✓) the correct answer :

- The undigested part of plant food that helps the digestive system of our body is :
(a) Mineral (b) Fat (c) Vitamin (d) Roughage
- Lack of vitamin A may cause :
(a) Scurvy (b) Beriberi (c) Night Blindness (d) Weak Bones

3. Our body gets energy for daily activities from :
- (a) Carbohydrates and Fats (b) Minerals and Proteins
 (c) Vitamins and Minerals (d) Fats and Fibre
4. Anaemia is a disease caused due to the deficiency of :
- (a) Iron (b) Iodine (c) Sodium (d) Calcium
5. This substance is not a nutrient but essential for our body.
- (a) Oil (b) Water (c) Meat (d) Milk

B. Fill in the blanks :

- The substances present in food that are essential for our body are called _____.
- When a person is physically and mentally fit, he is considered to be _____.
- When some body part does not work well, it is called the condition of _____.
- _____ are the substances that can kill bacteria of diseases.
- _____ are some specific signs that help in identifying diseases.

C. Write T for True and F for False :

- Carbohydrates give us energy to work.
- Proteins are stored in our body.
- Roughage are useless for our digestive system.
- A disease can be identified from specific signs known as symptoms.
- Pasteurisation is a method of making milk germ free.

D. Match the following :

Column A

- Goitre
- Fatty foods
- Milk
- Tomato
- Rice

Column B

- carbohydrates
- calcium
- obesity
- deficiency disease
- Vitamin C

E. Answer the following briefly :

- What are non-communicable diseases?
- Which nutrient is stored by our body for further use?
- Which substance is used to kill the bacteria of various diseases?
- Which nutrients contain carbon?
- What is pasteurisation?

F. Answer the following in detail :

1. What are nutrients? Define various nutrients and give examples of each.
2. How are roughage and water essential for our body?
3. What are the symptoms and preventive measures for these diseases : Tuberculosis, influenza and jaundice.
4. What are deficiency diseases? Name one disease and describe the reason of it.
5. What is a balanced diet?

Practice Time

G. Collect information on deficiency diseases and their prevention from various sources like internet, magazines etc. Now make a project using this information.

H. Take a look at a packet of common salt in your kitchen. What are the main ingredients contained in the packet? Make a note on the diseases a person may suffer from due to the lack of those ingredients.

I. Collect information about making healthy food interesting and yummy too.

Have Fun

❖ In following word search grid, find names of five diseases that are given in the chapter :

S	D	I	G	P	E	R	S	A	L	S	B
C	A	A	O	O	U	I	T	H	E	L	E
U	V	N	I	I	N	C	E	A	A	X	R
R	I	D	T	M	A	K	D	P	R	T	I
V	G	K	R	I	L	E	L	T	C	N	B
Y	U	I	E	L	V	T	I	E	H	R	E
E	N	S	P	G	E	S	N	R	G	M	R
F	T	H	L	A	R	H	M	S	R	P	I
A	G	R	I	C	U	L	T	U	R	E	I
R	K	S	R	A	Y	D	R	T	D	A	O
M	U	T	M	G	K	U	A	R	H	G	N
A	N	A	E	M	I	A	L	S	A	T	O