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HEALTHY LIFE AND CLEANLINESS

You must have heard of the saying, 'health is wealth'. We always want that we should not fall ill. We eat properly to work in a better way. By doing this we will be happy and healthy. People around us will be happy seeing us happy. This is called healthy life. Healthy life means a body free from diseases and a mind free from mental problems.

To be healthy we require cleaning our body, follow good habits and take healthy and proper diet. Exercise and taking rest is also important. If we have the deficiency of any element in our body, it will make us dull, ill and suffer from many diseases. To save ourselves from diseases we should have immunity power to fight diseases. Immunity power can be increased by vaccination and proper diet. Our ancient scriptures have laid emphasis on it. Even ayurveda says that we should live balanced life, exercise daily and follow rules to be healthy and to live a long life. It is said 'jiveta Sharad Shatam'.



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Let us know and understand what important for a healthy life is in this lesson.



OBJECTIVES

After understanding this lesson, you will be able to:

- Tell the importance of food for the body
- Explain the importance of food for the body
- Describe the importance of necessary nutrition elements for the body
- Explain the diseases cause because of deficiency of some nutrients
- Explain balance diet
- Describe the importance of cleanliness for good health

9.1 FOOD AND ITS NUTRIENTS

You must have felt that whenever we feel hungry, we eat food. Food not only ends our hunger but also gives us energy. Food gives energy to do some essential elements required for the important works of the body. All the elements found in food which are essential for our body are called nutrients. Various nutrient elements found on our food are 0 carbohydrates, protein, fats, vitamins and mineral salts etc.

Let us know about from where we can find nutrients what are their functions and which diseases are caused by their deficiency.

a. carbohydrates



Fig. 9.1: sources of carbohydrates

This is an important element in our food, the main function of carbohydrates is to provide energy for physical work like playing, learning, working in a farm or factory etc. Whenever you are sitting or sleeping, various activities also take place like breathing, pumping of heart, food digestion etc. We require energy for these processes also. Do you know that carbohydrates contributes in making a food tasty?

The main food elements in our food which gives us energy are all types of grains like wheat, rice, maize, millet, bajra, ragi etc. we also get energy from roots kandmool, example, potato, arbi,



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turnip, sugarcane, banana etc. other sources of carbohydrate are sugar, honey and jiggery. If we take extra carbohydrates in our body, they get deposited in the form of fats in our body.

If the intake of carbohydrates is less in our body then our weight gets reduced and we feel tired.

b. protein

Protein is essential for the development of body. Therefore, we must consume protein rich food. This helps us in building of new cells, tissues, organs, hormones and hemoglobin (red pigment in blood). It also helps in the maintenance of damaged cells. All pulses like masoor, moong, urad, rajma etc gave high protein. Our body also gets protein from milk, curd, paneer, meat, fish eggs etc.

9.2 SOURCES OF PROTEIN

Children need protein in more quantity. This element is important for their growth. Less consumption of protein leads to less development of body and mind energy and malnutrition is caused by the lack of protein in food. This malnutrition is of two types- Kwashiorkor and marasmus.

Kwashiorkor : This is caused mainly by the lack of protein. Here the child has swelling on his hand, legs and face, he also suffers from loose motions. He gets a fat belly.

Marasmus : This disease is caused because of less carbohydrates intake in food by child. His muscles start drying up. He gets wrinkles

on his skin. This disease is also called dry disease. Child cannot grow in this disease and his skeleton can be seen in his body.



INTEXT QUESTIONS 9.1



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Fill in the blanks:

1. Carbohydrates provide _____ for doing many physical activities.
2. Protein elements help in the _____ of new tissues in our body.
3. Child gets _____ on his hands, legs and face and has _____ in Kwashiorkor disease.
4. Less intake of carbohydrates leads to _____ disease.
5. Child muscles get dried up and _____ are on skin in marasmus disease.

c. fat

fat gives us energy. It gives a soft layer on the heart. Therefore heart does not get damaged by a push or injury. Some vitamins



Fig. 9.5 food items giving fat



like a, d, e, k are soluble in fat and fat helps us in getting them from the food. Fats are important to make our body work various food items like bitter, ghee, cream, malai, oil (mustard, cocount, groundnut, til etc) gives fat. But extra fat is not good for health. Therefore we must take foods giving fat in a limited manner. Ghee, butter and malai consumption can be dangerous to elderly people. Fats give more energy than carbohydrates when needed.

Mineral salts

We require very less amount of mineral salts found in our food. But for the proper functioning and growth of human body, mineral salts are required for example - for building blood in human body, iron is required. Therefore, it is essential to have mineral salts in our food. There are various sources of getting mineral salts. We will read their functions and diseases cause by their deficiency are given later in this chapter.

d. calcium

calcium helps in building bones and teeth. It also controls the speed of muscles. We get calcium form milk, paneer, curd, butter milk, green leafy vegetables (spinach, reddish, cauliflower, methi, arbi ke patte, bajra, black grans) etc. Its deficiency leads to weakness of bones and their deformation. teeth also get weak by the deficiency of calcium.

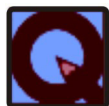


e. iron element

iron is required for the building hemoglobin a red pigment found in red blood cells in blood. It is mostly found in green leafy vegetables, Bajra, chidwa, ragi, murmura, jaggery, roasted gram, masoor dal, fish etc. The deficiency of iron leads to a disease called anemia. Anemia refers to the deficiency of red blood cells. Patient feels weak and his breathing is abnormal. His nails get fellow. He does not feel good to eat something.

f. iodine

This salt is essentials for the growth, development and functioning of biological activities. The most common source of iodine is salt (with iodine). Iodine is also found in extra amount in food obtained from salt. Deficiency of iodine leads to goiter. It also leads to the swelling of thyroid glands. Deficiency of iodine leads to improper growth of children.



INTEXT QUESTIONS 9.2

1. Which functions of human body are related to calcium?
2. why is iron important for us?
3. write any two sources of iodine?
4. match the following

Mineral salts	deficiency disease
Iodine	deformed bones
Calcium	anemia (less blood)
Iron	goiter



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9.4 VITAMIN

There is an importance of vitamins like other nutrient elements. Vitamins are required for many biological activities in human body. There are required in small amount. There are many types of vitamins like a, b, c, c d, e, k etc.

Let us know can we get vitamins, what are their functions and what are the diseases caused by their deficiency.

1. vitamin a

It helps in proper functioning of eyes, keeping skin healthy and boosting immunity power of body to fight disease. This is found in bajra, papaya, sitafal, carrot, mango, yellow maize, green leafy vegetables, like, egg, butter, fish etc. deficiency of vitamin causes night blindness, patient cannot see properly in dim light in this disease. More deficiency of vitamin a causes blindness.

2. vitamin d

It is essential for building bones and increasing their strength. Vitamin d is build by our body with the help of sunlight. This is the cheap and simple medium of getting vitamin D. vitamin D is also found in fish oil, egg and kaleji. Deficiency of vitamin d causes rickets, bones get weak and legs get deformed in shape of bow.

3. vitamin e

This vitamin is required for reproduction capacity this is mostly found in vanaspati oil, fish, egg, flour with choker, milk



etc. ITs deficiency causes sterility meaning less reproductive capacity.

4. vitamin k

This vitamin helps in blood clotting after an injury; the main sources of vitamin k are green leafy vegetables, cauliflower, cabbage etc. deficiency of vitamin k causes more time in blood clotting after an injury which can be dangerous.

e. vitamin b complex

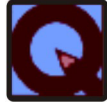
Many vitamins are found in this group of vitamins, example b 12. These are necessary for the development and growth of body. They keep our muscles and skin healthy, some of the sources of vitamin b complex are - sabot and sprouted pulses, milk and its product. Deficiency of vitamin b causes bery-beri. This leads to less hunger and problem in digestion. The corners of mouth get cut, tongue gets rough and red, misbalance in biological process is caused by the deficiency of vitamin b complex.

f. vitamin c

It is essential for wound filling. This keeps our skin, teeth, bones, healthy and strong. It also gives power to fight diseases. It is found in raw fruits and vegetables, amla, lemon, grapes, tomato, sprouted pulses, sahjan ki falii etc, deficient of vitamin c causes scurvy, gums get swollen and blood starts coming out of them. It takes time to cure wounds and immunity power gets lessened.



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INTEXT QUESTIONS 9.3

1. State whether the given statements are true or false:
 - i. Vitamin a helps in proper functioning of eyes. ()
 - ii. vitamin e helps in blood clotting. ()
 - iii. deficiency of vitamin c leads to less reproductive capacity. ()
 - iv. guava, lemon and orange are good sources of vitamin a. ()
 - v. Deficiency of vitamin d deforms legs and gives them a bow shape. ()
 - vi. beri beri is caused by the deficiency of vitamin b. ()
 - vii. gums get swollen by the deficiency of vitamin c. ()

9.5 OTHER ESSENTIAL ELEMENTS OF FOOD

Other nutrients which are required for good health include water and fiber. These are essential for a good health. let us know more about it.

Water: water is required for all biological activities of human body. About 55% of human body is water, water is required to keep human temperature normal (98.4 degree Fahrenheit or 37 degree Celsius). We require more water in summer. We should always drink water and other liquid drinks. We should always drink 7-8 glass of water every day.

Fiber: fiber is also an important part of our food eating. Eating fiber in optimum quantity helps us in constipation and provides proper digestion of dodo. It also supports proper excretion out of

human body. Eating good amount of fiber saves us from obesity. We get required fiber from green leafy vegetables, fruits, sabot grains, pulses etc.



9.6 BALANCED DIET

To be healthy we require nutrient elements in optimum quality. Eating all essential nutrients in optimum quantity in our food is called balanced diet. We could not get all nutrient elements by eating same food every day. We must mix and inter change many food items for a balanced diet. We can also save ourselves from disease by eating balanced diet. Balanced diet is a diet which has all essential items required by our body in optimum amount.

1. malnutrition

Have you ever thought what are the harmful effects of not having a balanced diet? Our body gets deficient after not taking balanced diet. This might also lead to the maximum intake of some nutrient elements. This is called mal nutrition. There can be many forms of malnutrition.

2. alap poshan

After eating less than required food or intake of few nutrients causes less nutrition. Many diseases can be caused because of fewer nutrients. Body does not get all sufficient minerals in proper quantity.

3. ati poshan

Do you know that obesity is also a disease? Some people eat more than required and do less physical activity, because of this

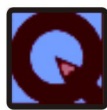


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fat gets deposited in human body and the person get obese or fatty. This is called ati poshan. Many diseases like diabetes blood pressure etc are caused because of obesity. Therefore, we must eat sweets, butter, ghee etc in proper amount. We should eat raw fruits, green vegetables, sabot grains, pulses and fiber in good quantity to save ourselves from obesity.

Diet group

We eat many types of food product everyday like roti, pulses, rice, vegetables, curd etc. This is possible that some mineral elements are high in some product and other nutrition elements are less. There are mainly five categories of diet based on nutritional elements found in them. The benefit of dividing food products in these categories is that we can exchange the category of food with the other. If we eat only one type of food product then we will get same nutrient cements, for example if we eat wheat or maize flour, rice or bajra, we will get same nutrients.



INTEXT QUESTIONS 9.4

1. What is the meaning of balanced diet?
2. Why is fiber important in food ?
3. Why is water important for us?

9.7 NEED FOR CLEANLINESS

You have read of diseases which are caused by the deficiency of nutrients. Buts some diseases are caused by the unclean atmosphere around us, some diseases are transmitted from one



person to another. Such diseases are called communicable diseases. They are spread by coughing, sneezing, breathing, using dirty water and dirty food where mosquitoes-flies etc. sit. Some communicable diseases are typhoid, measles, cholera, corona, polio, malaria etc, therefore, it is necessary to clean our house and neighbourhood to save us from diseases. Personal hygiene and cleanliness is also very important. Let us learn about it.

1. Personal hygiene

The meaning of personal hygiene is to keep all our organs clean and care for them. It is important to follow some good habits. Some of the habits are as follows;



Fig. 9.6 cleanliness required for healthy body

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- Doing shouch everyday cleaning our hands every time after using toilet.
- doing brush or datun twice a day,
- taking bath everyday from clean water,
- eating food after washing hands,
- washing hairs regularly and coming them
- sleeping at least 6-7 hours at night
- Cutting nails regularly and cleaning them
- walking and doing exercise twice a day-morning or evening

Caring of organs of body

After all good habits some various organs of body like eyes, nose, ear, teeth etc require cleanliness and caring.

1. teeth: to keep teeth clean we require to brush twice a day- every morning and every evening. Our teeth gets rotten if we eat more sweet toffees, candies, sweets etc. teeth gets yellow. There come a bad smell from our moth and cavities also stick in our teeth. We should eat raw fruits and vegetables to make our teeth healthy and strong.
2. eyes: to clean our eyes we should wash them from clean water many times. We should not rub our eyes by dust or some dust particles as they move inside our eyes. We should not use kajal or soorma in our eyes. Learning or reading by lying down bed, reading in a moving vehicle or in less light damages eye. If there is flu or vision problem or injury in eye contact an eye specialist immediately.



3. ear: ear helps you in listening to a conversation going near to you. Sometimes there is a dust deposited in ears which needs to be cleaned from time to time. We should not use any pointed object (pin, needle etc) to clean our ear, this might damage our ear drum and we might become deaf. Ears also get damaged by listening high music. We can also clean our ears in guidance of an ear specialist. We should consult an ear specialist immediately if we have pain or injury in our ear.
4. skin: skin helps us in taking out polluted elements from our body. This also helps in maintaining the normal temperature of the body. Therefore we should take bath regularly with clean water. If we don't do this then allergic reactions comes out and cause many diseases.
5. nails: dirty nails takes dirt in our stomach with the help of food. Many types of diseases like loose motions, dysentery, vomiting or pain in stomach happen through dirty nails. Therefore, we must wash our hands after going toilets or before eating food.
6. hairs: we should wash our hairs twice a week by a mild soap, shampoo or ritha amala. We should also give massage to our hairs with warm oil. If we don't unclean hair fall happens. More lice can be found there, this can lead to dandruff or baldness.

If there is pain or injury n anybody part then we should consult a doctor. Self-medication can be dangerous.



2. Cleaning environment

Cleaning environment means to keep our house or neighbouring areas clean. We should keep our surrounding clean as virus or bacteria are born in dirty environment, we can do this in the following ways:

1. we should throw all the garbage of home and kitchen in a lid dustbin every day.
2. we should spread mosquito killer in drainage of our homes and surroundings.
3. Stop the collection of dirty water near our home to save ourselves from mosquitoes and flies.
4. Mop the pakka floors with phenyl.
5. there should be roof above the well so that the water of the well does not get dirty and polluted.
6. we should place a lid over drinking water.

Exercise

Regular exercise is important for good health and saves us from diseases. Indian scripture also advise physical exercise for healthy body. Exercise does not mean doing pushups but doing or sowing seeds in our farms, nirai-gudai, field work, ploughing fields, walking, jumping, playing, doing household work etc are also types of exercises.

This develops our muscles and we experience activeness and freshness. maharishi patanjali has explained many methods of exercise in yog sutra which help in keeping our body healthy.

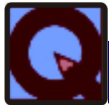


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c. rest and sleep

You must have seen that we feel tired after working or playing and jumping. After taking rest for some time we feel fresh again, we must sleep from 6 to 7 hours for better health.

Therefore, proper rest and proper sleep is required for good health. Proper diet helps in increasing the immunity power of our body.



INTEXT QUESTIONS 9.6

1. Fill in the blanks:
 - i. Skin helps in taking out ___ elements form the body.
 - ii. We must take ___ daily to keep our skin clean.
 - iii. We must not use _____ to clean our ears.
 - iv. ___ and reading in _____ is harmful for eyes.
2. Give two measures to keep our environment safe?
3. How can we save water from well from getting dirty ?
4. Who has written yog sutra?
5. How many hours of sleep is required for a better health?



Notes



WHAT HAVE YOU LEARNT

- Elements found in our home which are good and essential for human body are called nutrients.
- Some of the common nutrients found in food are - protein, carbohydrates, fats, minerals, salts and vitamins,
- Balance diet is a diet which contains all the required elements by the body in optimum quantity.
- Mal nutrition is caused in absence of balanced diet. It is of two types- alp poshan and atiposhan.
- There are many types of diseases which are caused by many other reasons or improper eating.
- Diseases which can be spread or transmitted by coming in contact with a patient or by any other medium is called communicable disease.
- We should take care of personal hygiene and cleanliness of neighbouring areas to save ourselves from diseases.
- Regular exercise, proper rest and sufficient sleep is also required to be healthy and to save ourselves from diseases.



TERMINAL QUESTIONS

1. Why is balanced diet necessary for us?
2. What is the difference between kuposhan and alp poshan?
3. Give the cause of spreading of communicable diseases.

4. Give two measures for care of eyes and ears?
5. Write about good habits relating to health?
6. What will be the five steps taken by you for cleaning your surroundings of your home?



Notes



ANSWERS TO INTEXT QUESTIONS

9.1

1. energy
2. building
3. swelling, loose motions
4. marasmus
5. wrinkle

9.2

1. to make bones and teeth strong. To control the movement of muscles.
2. to develop hemoglobin present in red blood cells.
3. salt, sea food items
4. 1. (3) 2. (1) 3. (2)

9.3

1. true
2. false
3. true

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4. false
5. false
6. true
7. true

9.4

1. A diet which has all essential nutrients in proper quantity is called balance diet
2. It helps in constipation and food gets digested easily.
3. To keep body temperature normal and for all biological activities

9.5

1.
 - i. Polluted
 - ii. Bathing
 - iii. pin/needle
 - iv. Lying down /reading in a moving car
2.
 - i. Cleaning draining pipes in our surroundings
 - ii. Stopping the collection of dirty water in our surroundings
3. Making roof on the well
4. maharishi patanjali
5. 6-7 hours

