

16.

HEALTH AND HYGIENE

A healthy person is one who is both physically and mentally fit. For us to remain mentally and physically fit, it is important that we know our body parts and their functioning. If our environment is not clean and we do not take care to keep our body clean then we will fall ill. Good habits, a balanced diet and a balanced life style will not only influence our personal health, but also that of whole community.

Health is influenced by factors internal to our body as well as external factors. Internal factors include improper functioning of internal organs like heart, lungs, kidneys etc. External factors include unbalanced diet, disease causing microorganisms, bad habits and environmental pollution.

16.1 Diet for Good Health

The food we normally eat in a day is our diet. For growth and maintenance of good health, our diet should have all the nutrients that our body needs, in right quantities. No nutrient should be in excess quantity or less than enough in quantity. A diet containing all nutrient foods in right amounts is called a balanced diet. The balanced diet has components called carbohydrates, proteins, fats, minerals and vitamins (Figure 16.1). Their classification is done on the basis of the requirements of the body .

- a. **Carbohydrates:** energy giving foods
- b. **Fats:** energy giving foods
- c. **Proteins:** body-building foods
- d. **Minerals and Vitamins:** foods that protect the body

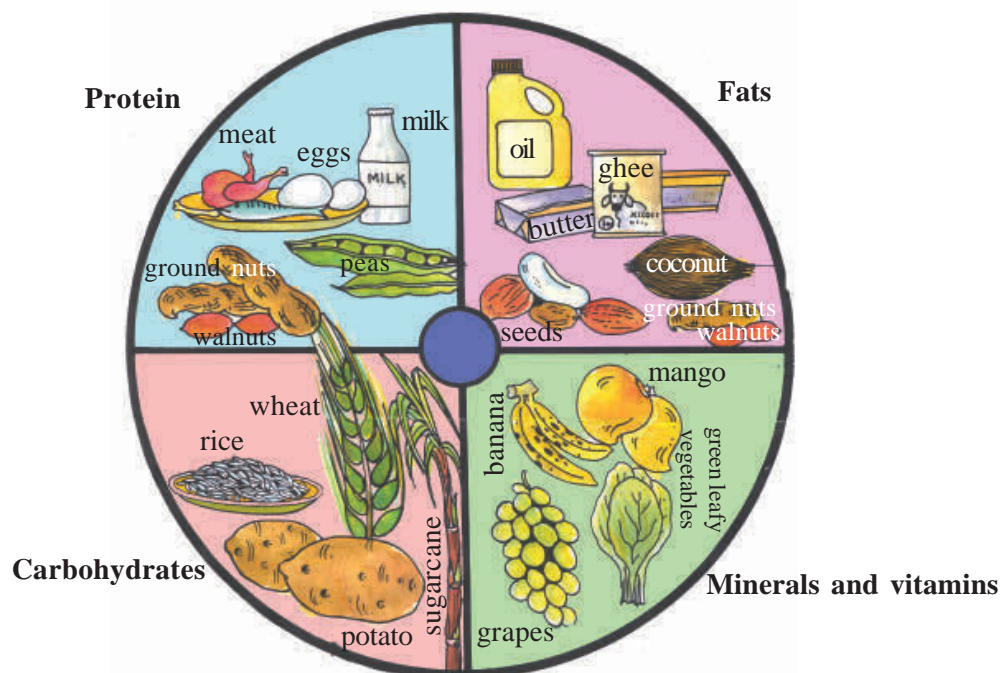


Figure 16.1 Different types of foods

The diet should also contain a good amount of roughage and water. Such a diet is called a balanced diet. Do you think that people of all ages need the same type of diet? Do you also think that what we need for a balanced diet would depend on the amount of physical work that we do?

Prepare a chart of whatever you eat over a period of week. Compare your list with other students of your class. Check whether all the nutrients for a balanced diet are present in your meals.

It is not necessary that a person getting enough food gets all nutrients in right proportion. The person may lack some or the other nutrient. Deficiency of one or more nutrients can cause disease or disorders in our body. Diseases that occur due to lack of nutrients over a long period are called deficiency diseases.

16.2 Some diseases/disorders caused by deficiency of vitamins and minerals.

Some diseases/disorders caused by deficiency of vitamins and minerals are as follows

Vitamin / Minerals	Deficiency disease/disorder	Characteristics	Sources
Vitamin A	Night blindness	Poor vision, loss of vision in darkness, sometimes complete loss of vision	Fish oil, Carrots, Pumpkin
Vitamin B1	Beriberi	Weak muscles and very little energy to work	Green leafy vegetables, gram, tomato, soya bean, coconut, egg
Vitamin C	Scurvy	Bleeding gums, wounds take longer time to heal	Lemon, citrus fruits, chilli, amla
Vitamin D	Rickets	Bones become soft and bent	Butter, egg, fish, sunlight
Calcium	Bone and tooth decay	Weak bones, tooth decay	Milk, curd, banana etc.
Iodine	Goiter	Glands in the neck appear swollen, mental disability in children.	Iodized salt.
Iron	Anemia	Weakness	Maize, spinach

Besides a balanced diet, for remaining healthy, it is also necessary that we keep our body's hygiene, and are regular with our habits and also exercise regularly. We should also keep our home, neighbourhood, village and town clean. You will learn about these things through the game 'Snake and Ladder'.

You probably know how to play 'Snake and Ladder'. This book has a pull-out paper having the game – take it out from the book. You can play the game in school or even at home. The game can be played in groups of four. In case you do not have dice then you can take three seeds of tamarind and split them – your dice are ready. You can use buttons, seeds or pebbles as counters for each team. Continue the game till buttons or counters of all players reach 'home' or in the box numbered 100. The moment any child's button reaches 100, s/he will be out of the game but s/he will continue to sit in her/his place.



ANSWER THESE

Write right/wrong against these statements –

1. There should be no standing water in the ground, near taps, wells and in our homes.
2. We should dirty our houses, schools and public toilets.
3. We should spit only on roads and walls.
4. We should put peels of vegetables and fruits in plastic bags before throwing them.
5. The dining area should be kept clean.
6. We should delay taking the sick person to the hospital.
7. Loud speakers should be used at full volume.
8. Plants and trees should be cut.
9. We should not urinate outside our homes or on the streets.

16.3 Health check up and Vaccination

We come to know about some disease in our body through medical examination. If we are regular in these examinations we will know about a disease in time and get timely treatment.

Vaccination is also a valuable method of controlling diseases. Children are vaccinated with B.C.G, D.P.T and Polio vaccines. This develops resistance in them against these life-threatening diseases and prevents them from being infected.



WE HAVE LEARNT

- A healthy person is both physically and mentally fit.
- We should take a balanced diet, i.e. a diet that contains proper quantities of carbohydrates, proteins, fats, minerals and vitamins. Lack of nutrients over a long period of time cause deficiency diseases.

- Important factors for a healthy body – balanced diet, clean water, fresh air, hygienic body, exercise, rest and not taking any addictive substances like alcohol, tobacco etc.
- Keeping oneself hygienic and free of disease is being healthy.
- For good personal health it is necessary to have-
 1. Regular bowel habits, bathing, proper exercises, rest and sufficient sleep.
 2. Regular cleaning of teeth and gums.
 3. Proper care of eyes.
 4. Regular cleaning of ears and nose and regular check-up.
 5. Proper care and cleaning of the hair for its healthy look.
 6. Regular cleaning and trimming of nails.
 7. Proper cleaning of the hand before meals and after using the toilets with soap or fresh ash.
- For a healthy community it is necessary to – put garbage in bins, prevent stagnation of water, proper use of community toilets, not spitting on walls and on the streets, disposing garbage properly, preventing pollution, having health education and having a proper arrangement for treatment.

Why use the Toilets ?

The main source of disease germs are the faeces. One gram of faeces has about 1 crore virus, 10 lakhs of bacteria and 1000 parasites and their eggs. The germs in the faeces are so small that they can not be seen by naked eye. To protect ourselves from these germs of the faeces, the best form is the use of toilets. We can be free from the diseases only if hundred percent people use the toilets. Even if one person doesnot use the toilet and excrete in the open then the possibility of diseases remain same as if cent percent have not used the toilets. There fore all must use the toilets.



EXERCISE

1. Match correctly:

A

1. Protein
2. Tobacco chewing
3. Part affected by smoking
4. Minerals and vitamins
5. Personal health

B

1. Lungs
2. Body-building
3. Protection of the body
4. Care for the body
5. Mouth cancer

2. Choose the correct alternative :

- i. Found in large quantities in rice, potato and sugar
 - a. Vitamins
 - b. Proteins
 - c. Carbohydrates
 - d. Minerals
- ii. Diarrhoea occurs due to
 - a. drinking infected water
 - b. over-eating
 - c. drinking clean water
 - d. eating salads
- iii. Breathing problems may occur due to
 - a. Soil pollution
 - b. Air pollution
 - c. Water pollution
 - d. Noise pollution
- iv. Vaccination for which disease involves taking an oral dose of the vaccine:
 - a. Malaria
 - b. Diarrhoea
 - c. Cold
 - d. Polio
- v. Disposal of garbage should be:
 - a. packed in plastic bags
 - b. thrown on the streets
 - c. thrown outside the houses
 - d. segregated and if possible some materials recycled.

3. Fill in the blanks with correct option.

- (a) Lack of vitamin A causes.....disease (night blindness/ scurvy)
- (b) We get from sour fruits. (vitamin D / vitamin C)
- (c) is the energy giving food. (dal / rice)
- (d) Body building food is (ground nut / banana)
- (e) For good health is needed. (balanced diet/ narcotic drugs)

4. Write answers to these questions:

- i. Why is there a need to have a balanced diet?
- ii. Why should fruits and vegetables be washed before use?
- iii. Why should food and water be kept covered?
- iv. Why is health education necessary?
- v. What all should be kept in mind to keep healthy?
- vi. Why are toilets necessary at our homes and schools ?

- vii. What is vaccination?
- viii. How do bad habits affect health?
- ix. What should we do to keep the community healthy?
- x. Write what you understand by personal and community health?
- xi. Why is it necessary to wash hands before meals ?
- xii. Why must not we drink unclean water ?

THINGS TO DO

- How can food materials lying uncovered in the market-places harm us? Organize discussions on this periodically.
- Collect articles written about the diseases caused by water pollution from newspapers, magazines etc. Also collect material on prevention of such diseases. Paste these in your project – notebook and discuss it with the community
- Copy the given vaccination schedule on a chart paper and put it up in your class room and also at the public square of your locality. Encourage people in your family and neighbourhood to get all small children vaccinated at proper times.

Vaccination Schedule		
Age of the Child	Vaccination	Disease
At birth	B.C.G.	Tuberculosis
At 6 weeks	D.P.T. , polio drops - 1	Diphtheria, Whooping cough, tetanus and polio
At two and a half months	D.P.T. , polio drops - 2	Diphtheria, Whooping cough, tetanus and polio
At three and half months	D.P.T. , polio drops - 3	Diphtheria, Whooping cough, tetanus and polio
At nine months	Measles	Chicken pox, measles
At one and half years	Polio Booster - 1	Polio
At 5 years	Polio Booster - 2	Polio

4. Make a list of nutrients present in the food of animals wandering near your surroundings.

S.No.	Name of Animal	Food material	Nutrients
1	Cow	Grass, husk, jaggery and khali etc.	Carbohydrate, fat
2	Dog	-----	-----
3	-----	-----	-----
4	-----	-----	-----

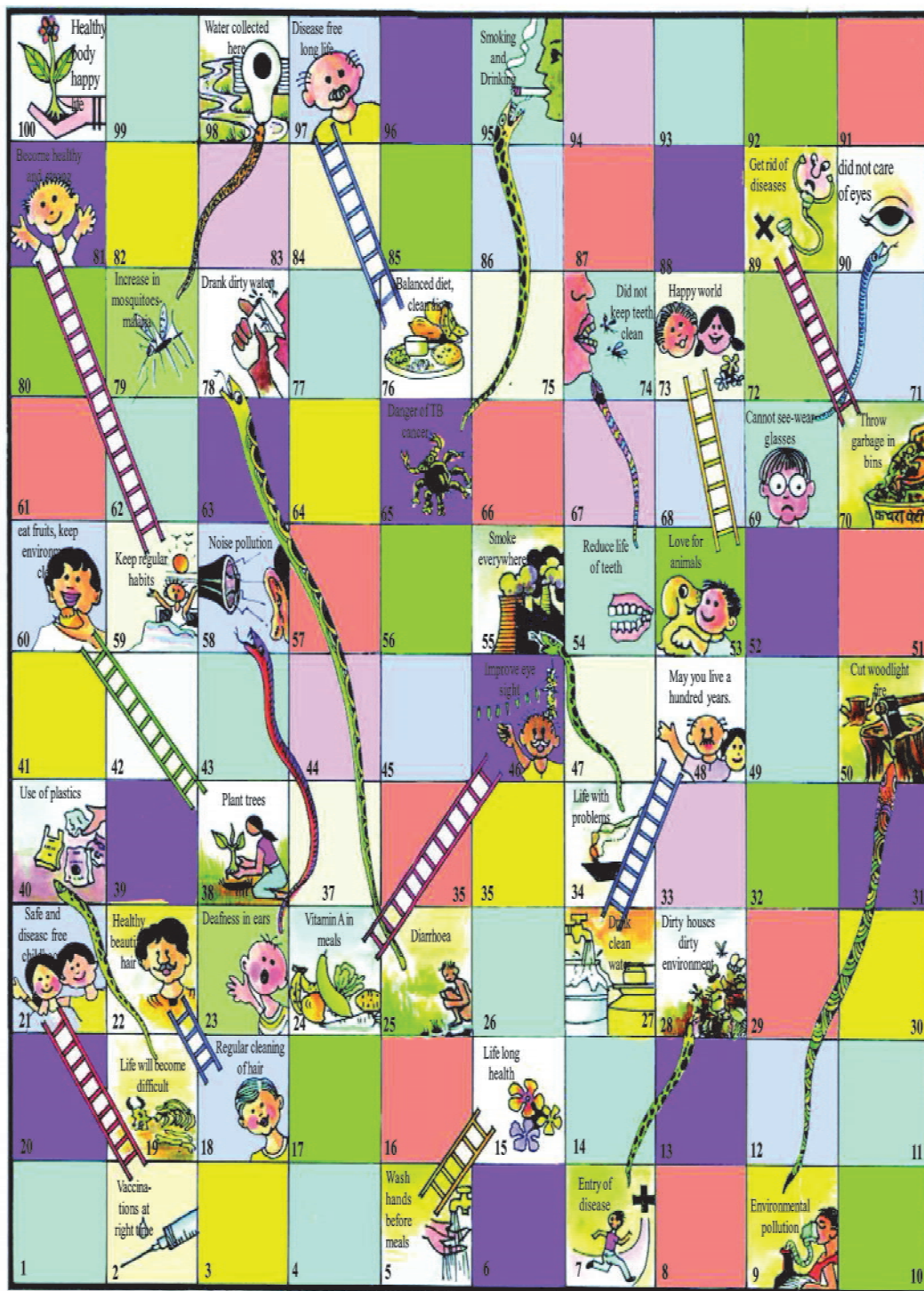
Discuss about the balanced diet of animals from the information gathered by other students of your class-

5. Make a balance diet chart for a 12 year old child. The diet chart should include all the food items which are not costly and found easily in your local area.

6. In your house what will you do to stop wastage of food? Make a plan with your family members and friends and apply it.



Snake & Ladder



Facts related to the game

- 2. Vaccination at the right time 21. Safe and disease-free childhood**
 - . diseases like polio, cholera, small pox can be prevented by vaccination.
 - . The government has a national vaccination programme.
 - . All children up to 5 years should be given preventive vaccination.
- 5. Wash hands before meals - 15. life long health**
 - . You may fall ill if you cook or eat food with dirty hands.
 - . Wash your hands with soap before meals and after using the toilet.
- 18. regular cleaning of hair - 22 healthy beautiful hair**
 - . Hair should be cleaned and combed regularly
 - . Dirty hair results in dandruff and lice infestation. This causes itching and hair fall.
- 24. Vitamin A in meals- improves eye- sight**
 - . Spinach, milk, butter, cabbage, carrots, mangoes are rich in Vitamin A
 - . Lack of Vitamin A can cause night-blindness.
- 27. Drink clean water - 48 may you live a hundred years.**
 - . Water for drinking should be kept in a clean vessel and kept covered.
 - . Water for drinking should be cleaned by boiling, filtering or by adding chemicals.
 - . Drinking dirty water may cause infection in the stomach, vomiting, diarrhoea or jaundice.
- 28. Dirty house, dirty environment - 7 Entry or disease**
 - . There are germs in dirty places
 - . Flies pick up germs from dirty places and carry them to the food they sit on.
- 38. Plant trees - 60 eat fruits, keep environment clean**
 - . Trees keep the air fresh
 - . Plants prevent runoff of soil and make it fertile.
- 40. Use of Plastic - 19 life will become difficult**
 - . Plastic does not disintegrate
 - . Burning of plastics releases poisonous gases
 - . When animals eat plastics then there is a danger of their dying.
- 50. Cut wood-light fire - 9 environmental pollution**
 - . Cutting trees increases environmental pollution. The soil becomes bare and the animals and birds have no places to live in.
- 53. Love for animals - 73 happy world**
 - . Different kinds of living organisms help maintain balance in nature.

55. Smoke everywhere - 47 Life difficult

- . The smoke that comes out vehicles, factories and stoves is harmful for health.
- . Smoke has a bad effect on the nose, throat, wind pipe and lungs.

58. Noise pollution - deafness

- . Loud noise leads to pollution.
- . Very loud noise can cause the membrane in ear to tear and cause permanent deafness.

59. Keep regular habits - 81 become healthy and strong

- . Early to bed and early to rise, makes man healthy and wise.
- . One should be regular in one's bowel habits, keep teeth and hair clean and bathe regularly.
- . One should follow a regular schedule in taking exercise, eating meals and studies.

70. Throw garbage in bins - 89 get rid of diseases

- . It is easier to remove garbage and dispose it off if collected in garbage bins.
- . Flies, mosquitoes etc. cannot sit on covered garbage.

74. did not keep teeth clean - 54 reduce life of teeth

- . One should brush one's teeth and massage the gums before going to bed at night and in morning on waking up. If cleanliness is not maintained then it may cause teeth decay and the mouth could give a foul odour.

76. balanced diet, clean air - 97 disease free long life

- . The diet for children between the ages 10 and twelve should include two cups of cooked cereal, half a cup of cooked lentils (*dal*), 2 cups of milk, green vegetables and seasonal fruits.

78. drank dirty water - 25 diarrhoea

- . Areas around wells, handpumps, community taps etc should not be dirty.
- . There are germs in dirt and mixed with water can cause diarrhoea, vomiting etc.

90. did not take care of eyes - 69 cannot see without glasses

- . one should wash one's eyes with clean fresh water early in the morning.
- . Protect eyes from very strong light.

95. intake of drugs - 65 risk of T.B. and cancer

- . the use of bidi, cigarette and tobacco causes diseases pertaining to mouth, nose, throat, trachea and lungs.
- . the substance 'nicotin' which is found in tobacco is very harmful for the body.

98. Water collected here - 79 increase in mosquitoes - malaria

- . Do not allow drains and gutters near your home to fill up with dirt and water.
- . Keep the bathrooms and toilets clean.

100. Healthy body - happy life

- . For a healthy body you will have to develop regular and healthy habits.

Braille

An Introduction



Do you know what is written here?

It is: I want to be a lawyer.

Like devnaagri and Gurumukhi etc. Braille is also a script. Braille script is used by Blind persons to read and write. Braille was invented by Louis Braille in 1829. Braille script is based on six dots. These six dots are referred as the Braille cell. Each cell comprises of one Braille character. To write Braille script Blind person uses Stylus and Braille slate. Braille slate consist essentially of two metal or plastic plates hinged together to permit a sheet of paper to be inserted between the two plates. While writing on a Braille sheet (drawing sheet) it is to be written from right to left and then reverse the normal numbering of the Braille cell. Blind person reads these raised (embossed) dots with the help of their finger tip.

① ④

② ⑤

③ ⑥

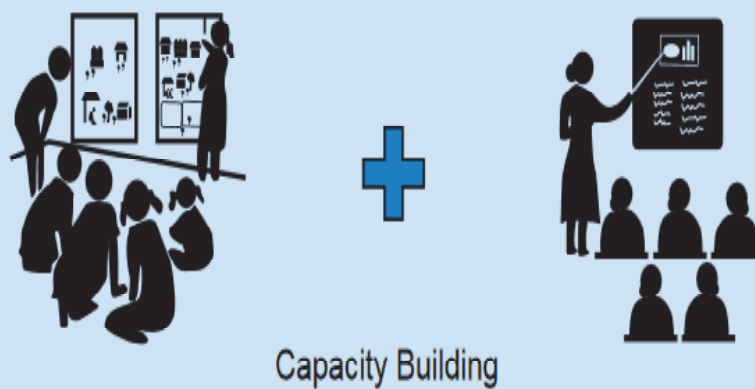
Total 63 combinations are possible using these 6 dots.
Some combinations given below:

Braille cell

Braille Chart

a	b	c	d	e	f	g	h	i	j
⠁	⠃	⠉	⠙	⠑	⠋	⠗	⠈	⠊	⠚
k	l	m	n	o	p	q	r	s	t
⠅	⠇	⠓	⠝	⠕	⠖	⠞	⠒	⠠	⠟
u	v	w	x	y	z				
⠥	⠦	⠗	⠭	⠽	⠿				
A Number sign (⠼) is used before the alphabets 'a' to 'j' to convert them to numbers.									
1	2	3	4	5	6	7	8	9	0
⠼⠁	⠼⠃	⠼⠉	⠼⠙	⠼⠑	⠼⠋	⠼⠗	⠼⠈	⠼⠊	⠼⠚

A Minimum Swachh Vidyalaya Package



स्वच्छता- एक आदत है ।

(स्वच्छ भारत, स्वच्छ विद्यालय)



Everyone must be his own scavenger.

M. K. Gandhi

प्रत्येक को अपना कूड़ा-करकट, स्वयं साफ करना चाहिए ।

—महात्मा गांधी



राज्य स्वच्छ भारत मिशन
छत्तीसगढ़ शासन