

Health, Hygiene and Diseases

You must have heard the saying 'health is wealth'. Most of you must be in good health. If you keep good health your parents may not have to worry about your health. Health is of prime concern for individuals as well as for the community at large.

Good health requires certain efforts and cannot be purchased. In this lesson we will discuss the characteristics of good health and the various factors that help to maintain it. Cleanliness inside and outside the house, along with proper sanitation helps in keeping the environment disease free. Knowledge of first aid can be of great help in saving a victim's life in case of an emergency. You will learn about some first aid techniques also in this lesson.

OBJECTIVES

After completing this lesson, you will be able to:

- define health and differentiate between personal and community health;
- explain the role of proper nutrition, healthy habits and physical exercise in maintaining good health;
- define hygiene and suggest ways to show that health and hygiene are interrelated;
- define disease and classify diseases into communicable and non-communicable types;
- mention the cause, mode of transmission, symptoms and preventive measures of some common communicable diseases;
- define immunity and list the various national immunisation programmes;
- define first-aid and identify some of its methods.

31.1 HEALTH AND HYGIENE

What is good health? Different people may consider good health differently. But to define it formally, **health is a state of complete physical, mental and social well-being**. We take health as being free from diseases but it is much more than just the absence of a disease. Good health may enable us to do well at work and in life. Good health involves proper functioning of all body organs. It also involves feeling well both in body and in mind. People enjoying good health are cheerful, free from stress, and enjoy life to the fullest. Only if you are in good health you can be of help to others and the community.

Do you consider yourself to be in good health by the above-mentioned definition?

To keep ourselves free from diseases and to have good health, we should be careful about hygiene. **The various practices that help in maintaining good health are called hygiene.** The word hygiene comes from a Greek word *hygieia* that means ‘*Goddess for health*’ and deals with personal and community health. **Thus, health and hygiene go hand in hand or they are interrelated.**

Proper nutrition, physical exercise, rest and sleep, cleanliness, and medical care are essential parts of maintaining good health. Health includes both **personal and community health.**

31.2 PERSONAL HEALTH

Taking care of oneself to remain healthy and free from diseases is personal health. Some important aspects of good personal health are as follows:

1. **Balanced diet:** You have already studied about the need and importance of balanced diet in lesson 25. Obtaining a balanced diet depends on one’s choice and what one can usually afford. It also includes the correct proportion of carbohydrates, proteins, vitamins, minerals and roughage in your diet.
2. **Personal hygiene:** There are some activities you perform everyday in order to keep yourself clean. Can you list them out? These activities are:
 - **Regular toilet habits:** Regular bowel movements keep us free of body wastes generated inside the body.
 - **Washing hands before eating:** Having food with dirty hands may make us sick because the dirt in our hand might carry certain disease-causing germs. We should wash our hands after going to the toilet. Washing hands with soap make them germ free.
 - **Bathing regularly and wearing clean clothes:** Dirt is a place for germs to grow. Bathing regularly keeps your body free of dirt, body lice and germs (Fig. 31.1).

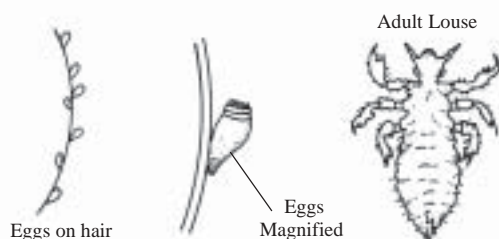


Fig. 31.1 Regular cleaning and combing keeps hair free from lice

- **Cleaning the teeth:** After eating food, some food particles may remain sticking to your teeth. These food particles form a medium for the germs to grow, harm your gums and teeth, and cause bad breath. Brushing of teeth every day do not let the germs grow. Brushing of teeth before going to bed is a very good habit.
- **Washing hair, cleaning eyes, ears and nails:** Regular washing and combing of hair helps in preventing dirt accumulation to keep the germs away. Nails should be clipped regularly; nail biting is unhygienic and must be avoided.

3. Domestic hygiene

- House should be kept clean and free from dirt, flies and germs.
- Cooking utensils, plates, cups and other utensils should be kept clean.

4. Clean food and water

- Fruits and vegetables should be washed in clean water to make them free from germs and pesticides (chemicals sprayed on plants to keep them insect free) before consumption and cooking.
- Water used for drinking, cooking, bathing and washing utensils should be from a clean source.

5. Cooking with care: Food should be prepared in a clean kitchen and in a clean manner.

- While cooking food, it is important to heat it to high temperature to kill any germs present in it.
- Cooked food should be eaten fresh or stored in cool, fly-proof place.
- Milk stored in the refrigerator or outside should be boiled again to make it germ free.

6. Abstaining from habit-forming substances: To keep healthy, one should avoid smoking, chewing of betel nut, gutka and tobacco, and drinking alcohol. Intake of such habit-forming substances may lead to health problems such as liver damage, kidney failure and heart failure.

7. Exercise: Regular walking and physical exercises have a good effect on health. Outdoor games and sport maintain the heart and circulatory system in good condition. Walking keeps the joints of bones healthy.

8. Regular sleep and relaxation: These also play an important part in maintaining sound mental health. They also help in the repair of body tissues.

CHECK YOUR PROGRESS 31.1

1. Define good health.
2. List two precautions that should be taken while storing cooked food.
3. Intake of alcohol and narcotics may cause damage to _____ and _____
4. Washing of fruits and vegetables makes them free from _____ and _____
5. Balanced diet includes correct proportions of _____, _____, _____, _____, and _____
6. List any two activities that keep heart in good condition.

31.3 COMMUNITY HEALTH

Activities, undertaken at the Government or local organisation level to maintain health of the people (for controlling diseases) are known as community health.

We often read in the newspaper or see on television about the fast spread of certain diseases in a particular area. Many people seem to get affected. This may not be an individual problem, but the problem of community and requires immediate attention. Local or government organisations may take steps to control

spreading of a disease, by creating awareness and ensuring adequate supplies of medicines. You must have seen notices and banners put up by the government agencies stating the date and time of immunization programmes and the precautions to be taken against different diseases. Such awareness is regularly created through nationwide campaigns against the spread of diseases such as malaria, dengue, AIDS, polio, leprosy, and Hepatitis B.

There are several organisations working towards good community health. Some of these are listed below.

1. Government hospitals, and dispensaries
2. The National Malaria Eradication (removal) Programme
3. The Tuberculosis (T. B.) Eradication Programme
4. National Immunization Programme
5. National Pulse Polio Programme

Some of the important tasks, which the community health centres undertake are:

- To maintain proper cleanliness by **disposing off the sewage from colonies.**
- To provide safe and **germ free drinking water.**
- To run various **immunization** (vaccination against various diseases) programs and other health awareness programmes wherever there is danger of spreading of a disease.
- To provide **health education.**
- To spray insecticides to kill harmful insects.
- To maintain food standards, regular inspection at food stores, meat and milk outlets.
- To prevent mosquito breeding, cover open drains and pour kerosene oil on the surface of stagnant water.

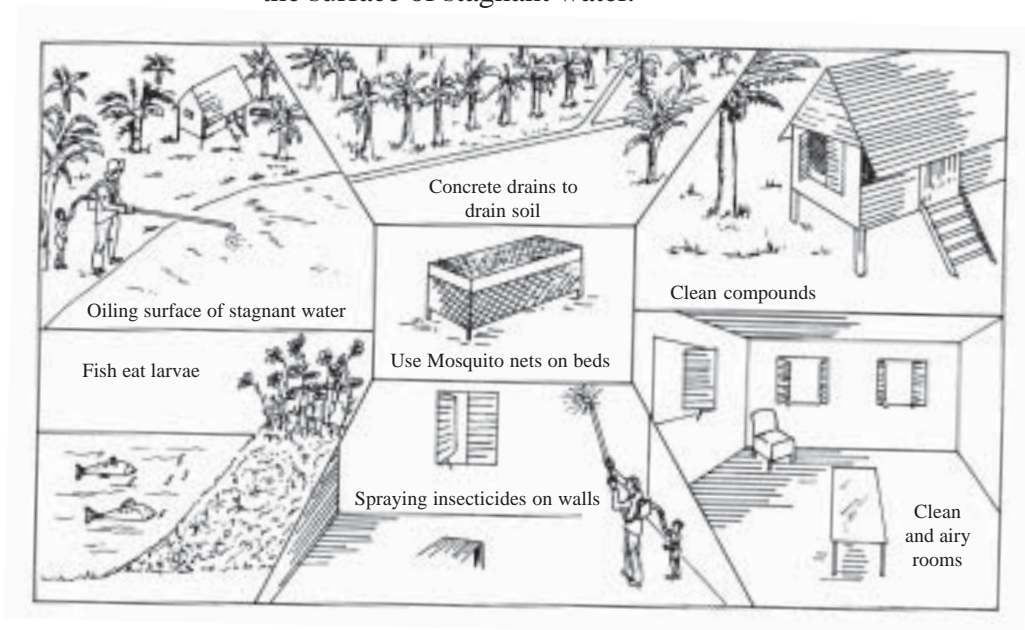


Fig. 31.2 Some efforts made towards maintenance of community health

31.4 ENVIRONMENTAL HYGIENE

You can keep your body clean but what will happen if you live in dirty surroundings? If so, you are sure to fall sick. Thus, to have a healthy living one must live in clean surroundings. Unclean surroundings may become breeding ground for flies and germs, thus, leading to spread of diseases.

Environmental hygiene includes environmental sanitation or keeping the surroundings clean.

To keep the environment healthy, we should be careful about the disposal of the garbage. Some of the practices for disposing the garbage are:

- **Keeping the house clean:** The house must be cleaned every day. We must sweep and mop the house to remove dirt from every nook and corner of the house. The furniture must also be wiped clean. The cobwebs from the walls and roof should be cleared at least once a week.
- **Throwing garbage in dustbins:** Do not throw your household garbage on the roadside. This makes street dirty and allows flies, mosquitoes and other animals to breed. This garbage not only gives a dirty look but also produces foul smell. Garbage should be thrown inside the dustbins. The bins should also be cleaned after emptying the garbage.
- **Keeping dustbins covered:** To prevent entry of insects and other animals inside the house dustbins should be kept covered.

CHECK YOUR PROGRESS 31.2

1. Name any two diseases for which awareness is being spread at the national level.
2. List any two national organisations working towards good community health.
3. Fill in the blanks.
 - i) Mosquito breeding may be prevented by pouring _____ on stagnant water.
 - ii) Unclean surroundings become breeding ground for _____ and _____.

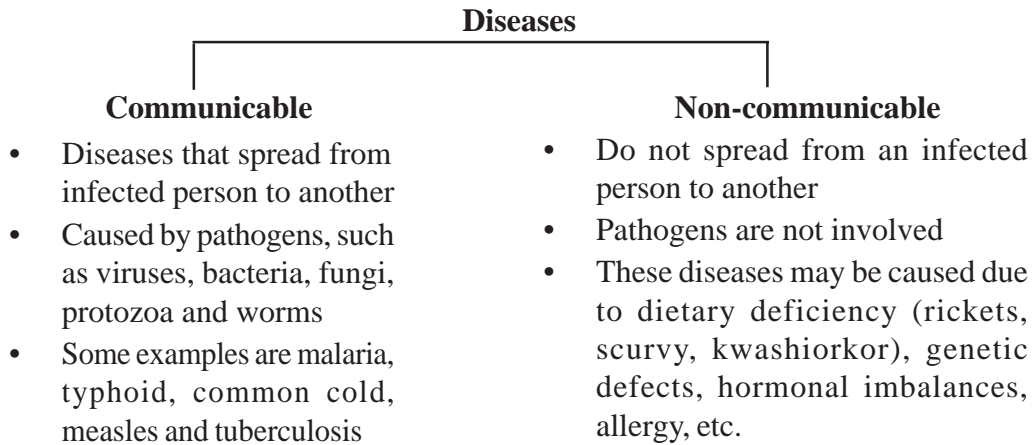
31.5 DISEASE

A disease is defined as any deviation from health or any state when body is not at ease.

Disease may be the sickness of the body or the mind. A disease can be as mild as a sore throat, common cold, and stomach upset or as serious as cancer. Disease can strike almost any part of the body and anybody at some stage or the other. They can also affect a person's mental and emotional health. In this section we will mainly discuss diseases of the body.

You may have heard of some common diseases or may be you have seen people suffering from some diseases, such as typhoid, malaria, rickets, jaundice, scurvy, common cold, etc. Can these diseases be categorised on some basis? One

of the bases could be the cause of the disease. **Diseases that are transmitted through air, water and physical contact or spread through vectors like flies and mosquitoes are termed communicable diseases.**



Epidemics

Sometimes you would have seen or heard about a disease affecting a large number of people in a small period. **A disease that affects a large population in a particular area is considered to be an epidemic.** Sometimes, cholera takes an epidemic form in our country. Cholera is a bacterial disease and marked by uncontrolled vomiting and diarrhoea. It may affect large number of people, leading to dehydration and death.

What is a communicable disease?

Diseases that spread from one person to another by the entry of pathogens are called infectious or transmissible or communicable diseases.

How do communicable diseases spread?

We all know that there are a lot of germs or pathogens (disease causing organisms) in the environment we live in. To carry on their life cycle, the pathogens try to come out of the body of an infected person and reach out to more hosts for their survival. They produce toxins in the host's body which leads to symptoms, such as fever and eruption of rashes, etc. These pathogens may be transferred from one person to another by the following methods.

- Direct method
- Indirect method

Direct method: by contact with the infected person.

Indirect method may include the following:

- **Touching and sharing items used by the infected person:** Using the same towel or sharing a handkerchief or same bed with the patient may also spread diseases.
- **Contaminated food and drink:** Food and drinks may get infected by flies and insects carrying germs.

- **Carriers:** These organisms carry germs from one place to another, for example housefly, cockroach, etc.
- **Vectors:** These are agents that harbour germs but they themselves remain unaffected. For example, animals such as dogs and monkeys, or mosquitoes.
- **Air:** Through droplet method, i.e. coughing and sneezing by the infected person (Fig. 31.3).
- **During blood transfusion** or other equipment such as infected needles.



Fig. 31.3 Droplet method of spread of communicable disease

31.6 CLASSIFICATION OF VARIOUS COMMUNICABLE DISEASES

We can classify various communicable diseases according to the type of causative organism or pathogen (Table 31.1).

Table 31.1: Diseases caused by certain pathogens

Type of pathogen	Diseases caused
Virus (Jaundice),	Influenza (common cold), Hepatitis Chickenpox, Measles
Bacteria	Cholera, Tetanus, Tuberculosis,
Fungi	Ring worm
Protozoa	Amoebic dysentery, Malaria
Helminths (worms)	Filariasis

The following table 31.2 will give you an idea of cause and symptoms of some diseases and the different ways to prevent them.

Table 31.2: Symptoms of some common infectious diseases, the causative organism, mode of transmission and preventive measures against the disease

I. Viral diseases

Disease	Causative organism	Mode of transmission	Symptoms	Prevention/ Cure
Influenza	Influenza virus	Direct or Indirect contact	Fever Body pain Sore throat Sneezing	Taking precautions Antibiotics to prevent secondary infections
Hepatitis (Jaundice)	Virus	Contaminated water	Weakness Rise in body temperature Yellowing of urine, eyes and nails Loss of appetite, nausea and vomiting	Intake of treated water Vaccination Avoiding contact with an infected person and his and his articles

II. Fungal diseases

Disease	Causative organism	Mode of transmission	Symptoms	Prevention
Ringworm	Fungus	Direct contact	Ring like discoloured patches over the skin and scalp Itching, redness	Personal cleanliness

III. Bacterial diseases

Disease	Causative organism	Mode of transmission	Symptoms	Prevention
Tuberculosis	Bacteria	Direct contact with infected person Coughing Contaminated food and drinks	Difficulty in breathing, chest pain; low grade fever especially in the evenings over long period; loss of weight; blood in sputum; night sweating	BCG vaccination at birth
Cholera	Bacteria	Contaminated food and water From germs present in faeces of patients	Acute diarrhoea; vomiting; dehydration; muscle cramps	Use of clean, treated water. Vaccination. Prevention of contamination.

IV. Protozoan

Disease	Causative organism	Mode of transmission	Symptoms	Prevention
Malaria	Protozoa	Female <i>Anopheles</i> mosquito bite	Intermittent high fever; Chilliness during periods of high fever; headache; Enlargement of spleen and liver	Prevent accumulation of water in surrounding; Protection from mosquito bite; taking anti-malarial drugs
Amoebiasis (amoebic dysentery)	Protozoa	Contaminated water and food Unwashed vegetables House flies	Abdominal pain; five to six blood and mucus containing stools per day	Proper disposal of human excreta; Preventing food and vegetables from contamination; Drinking safe water

V. Helminthic diseases

Disease	Causative organism	Mode of transmission	Symptoms	Prevention
Filariasis (Elephantiasis)	Helminthic worm	Female <i>Culex</i> mosquito	Fever; swelling of lymph nodes; permanent swelling of feet, legs and thighs; accumulation of large number of worms causing elephant leg-like swelling (Fig. 31.4) in the feet.	Prevention from mosquito bite; Taking preventive medicines in disease prone areas.

31.7 MEASURES TO PREVENT DISEASES

Contracting infectious diseases can be prevented by adopting measures such as:

- personal and community hygiene,
- intake of balanced diet,
- proper disposal of waste material,
- imparting education on habit-forming substances, and
- immunization against communicable diseases.

Protection from communicable diseases by immunization

Immunity is body's ability to defend (fight and protect) against diseases. Mother's milk during infancy is very important as it provides immunity against diseases to a newborn baby. Immunity can be of two types:

- **Innate immunity** (present from birth)
- **Acquired immunity** (achieved during one's lifetime)

Ways to acquire immunity

- **Exposure to a disease:** A person suffering from a disease, such as chicken pox, measles or mumps, develops life-long immunity against the disease.
- **By vaccination:** By taking vaccines against diseases, such as polio, tuberculosis, hepatitis, etc.

Vaccines are weakened germs. When introduced into the body, they make the body develop body resistance to fight against disease but do not themselves cause disease.

To prevent the occurrence of a number of communicable diseases, immunization through vaccines is highly effective.

Vaccines are available against Polio, Chicken pox, Tetanus, Diphtheria, Whooping cough, Tuberculosis and various kinds of Hepatitis, etc. Most of the immunization for life long immunity should be provided at an early age.

Under National Immunization Programme vaccination facilities are available at Government run clinics and hospitals for protection against some common communicable diseases.

Table 31.3: Vaccines given to a newborn child and mother

Age	Vaccine	Immunity against disease
Child		
2-6 weeks	BCG	Tuberculosis
3-12months	DPT	Diphtheria Pertussis (whooping cough or kaali khansi) Tetanus
	Measles vaccine	Measles

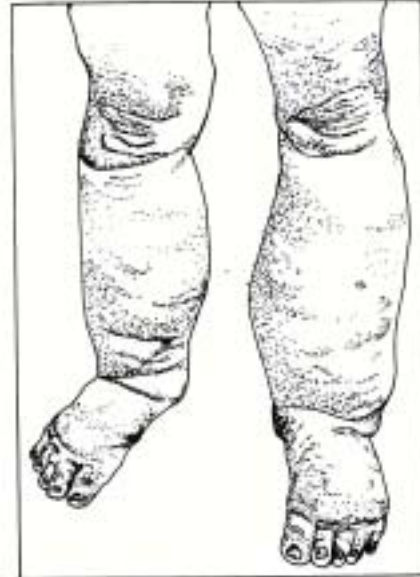
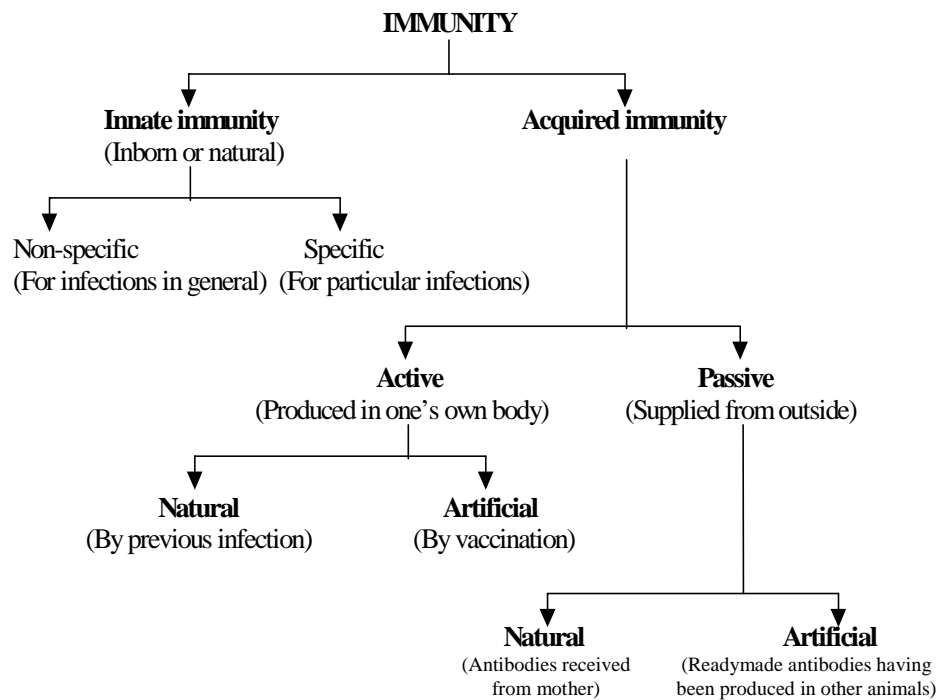


Fig. 31.4 Elephantiasis (elephant-like legs) caused by helminthic worms

18-24 months	DPT-booster dose; Polio booster dose (oral)	Diphtheria Pertussis Tetanus
5-6 years 10 years	Diphtheria and Tetanus booster dose Tetanus Toxoide-booster dose Typhoid vaccine	Diphtheria and Tetanus Tetanus and Typhoid
Mother (During pregnancy)		
16-24 Weeks	First dose of Tetanus toxoid	Protection against tetanus during child birth from surgical instruments
24-32 Weeks	Booster dose of Tetanus toxoid	



CHECK YOUR PROGRESS 31.3

1. List any two diseases transmitted from an infected person to other healthy person.
2. Are rickets and diabetes examples of communicable or non-communicable diseases?
3. Name any two diseases that can be prevented by taking vaccines.
4. Name the body organ(s) affected by hepatitis (jaundice).
5. Name a disease caused by the same group of organism that causes amoebic dysentery.

31.8 FIRST AID

Activities that can prevent serious deterioration of a victim's condition before he gets proper medical attention are called **first aid activities**.

You often share work with your parents at home or go outside to play or work. Sometimes you or your friends may get hurt. In case of a medical emergency it may not be possible to get medical attention at once. Immediate care given to a victim of an accident, sudden illness or other medical emergency can save life. All this comes under first-aid. Some first-aid techniques are given here.

31.8.1 BLEEDING

Severe bleeding due to deep injury may lead to acute loss of blood, low blood pressure and even death.

To stop bleeding:

- Press directly on the wound with thumb.
- Keep sterilised dressing or clean handkerchief.
- Make the victim lie down and elevate the bleeding part above the rest of the body.

31.8.2 Nosebleed

- Make the victim sit up and lean forward to minimise blood flow from that part.
- Press nostrils for a short while.
- Place an ice-cold cloth on the victim's face.
- Consult a doctor if bleeding doesn't stop.

31.8.3 Fainting

It is a brief, sudden period of unconsciousness. In most cases it occurs when a person is standing motionless for too long and may fall to the ground.

- Loosen the clothing and raise the feet slightly. Blood will flow back in the head and consciousness will be regained.

31.8.4 Dehydration

It is a condition when water is lost from body cells. Early symptoms include severe headache and dizziness. Acute dehydration can result in death.

Dehydration may be caused due to reasons, such as, extreme heat, excessive physical activity and inability to drink water, frequent vomiting and diarrhoea.

- Victim should be made to drink small quantities of Oral Rehydration Solution (ORS) at frequent intervals. ORS can be made by adding one teaspoon of sugar and a pinch of salt in a glass of (about 200mL) water.

31.8.5 Animal bite

It can result in serious infections and diseases if left untreated.

- Wash the area of bite thoroughly with soap and water and cover it with a gauze dressing.
 - In case of dog bite, the dog should be kept under observation to determine if it has rabies (aversion from water or hydrophobia).
 - Consult the doctor immediately for anti-rabies treatment.
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31.8.6 Burns

The first-aid treatment of burns depends upon the severity of the injury. First-degree burns produce a reddening of the top layer of skin. Second degree burns damage the deeper skin and may form blisters. To treat the first and second degree burns:

- Place the injured area in cold water to relieve the pain.
- Blot the area and apply a dry sterile dressing.

Third degree burns destroy the deepest layer of skin and should not be treated with water. They should be immediately covered with thick dressing, clean towel or cloth sheet. A doctor should be consulted immediately.

Chemical burns caused by acids or alkalis should be flushed with large amounts of water for at least 10 minutes.

31.8.7 Fractures and dislocations

A fracture is a break in the bone and a dislocation occurs when the end of the bone is forced out of its normal position in a joint. This may happen when we fall or injure ourselves while playing, driving or working etc. Signs of fracture and dislocation include pain, unusual position of a joint or bone, and tenderness and swelling around the injury. Victim may not be able to move the affected body part.

What needs to be done?

- Do not move the victim until the expert help arrives. Improper handling may cause more damage.
- Apply a splint in that area if victim has to be taken for further treatment. **Splint** is a support given to the injured area that prevents movement of the bones. Things, such as a walking stick, big scale, stick, umbrella, rod, etc. can be used as a splint. Splint can be padded and tied to remain in place (Fig. 31.5).
- Do not tie it very tight, as this may interfere with blood circulation.
- Do not move a person who has suffered neck or spinal injury.



Fig. 31.5 Technique showing application of splints

CHECK YOUR PROGRESS 31.4

Fill in the blanks.

1. Activities that can prevent any deterioration before medical help is available to a victim are called _____
2. Items such as _____ and _____ may serve as a splint in case of a fracture.
3. Cases of first and second-degree burns should be immediately dipped in _____
4. In case of animal bite, affected areas should be washed with _____ and _____
5. Extreme pain on movement, tenderness and swelling around the area are signs of _____

LET US REVISE

- Health can be defined as a state of physical, mental and social well being.
 - Basic conditions for good health are: balanced diet, personal hygiene, clean food, water and air, exercise and relaxation and abstaining from habit-forming substances.
 - The various practices that help maintain health constitute hygiene.
 - Hygiene could be personal and community (environmental).
 - Personal hygiene includes clean habits such as: daily bath, washing of hands before eating food and going to the toilet. Keeping nails, hair and teeth clean.
 - Community hygiene includes keeping the surroundings clean and not letting germs breed and cause diseases.
 - Environmental hygiene and health means keeping the house clean and not letting environment get dirty by throwing of the garbage.
 - Organisations such as government hospitals and dispensaries, and programmes such as: pulse polio, malaria eradication, leprosy and tuberculosis control aims at good community health.
 - Diseases can be communicable and non-communicable.
 - Communicable diseases spread from an infected person to another person through air, water, food and articles (objects).
 - Communicable diseases may be caused by viruses, bacteria, fungi, protozoans, and worms (helminths).
 - Polio, influenza (common cold), hepatitis are caused by viruses.
 - Tuberculosis and cholera are bacterial diseases.
 - Protozoans cause diseases such as: malaria, amoebic dysentery etc.
 - Elephantiasis (Filariasis) is caused by worms.
 - Immunization by vaccines is an effective way of protecting body against communicable diseases.
 - Activities that can prevent serious deterioration of a victim's condition before the person gets proper medical attention are called first aid.
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TERMINAL EXERCISES

A. Multiple choice type questions

1. Which one of the following diseases is caused by bacteria?
 - a) Polio
 - b) Hepatitis
 - c) Tuberculosis
 - d) Ringworm
2. Which of the following is a communicable disease?
 - a) Rickets
 - b) Scurvy
 - c) Marasmus
 - d) Cholera
3. Communicable diseases are those which are
 - a) caused by bacteria
 - b) carried from one person to another
 - c) caused by the deficiency of nutrients
 - d) carried from one organ of the body to another
4. Immunity against tuberculosis is provided by which of the following vaccines?
 - a) DPT
 - b) Tetanus Toxoide
 - c) BCG
 - d) Booster dose
5. The causative organism for malaria is a:
 - a) bacteria
 - b) virus
 - c) fungus
 - d) protozoa

B. Descriptive type questions.

1. Define hygiene.
 2. Why is it insisted to use water from a reliable source?
 3. What is an epidemic? Give one example.
 4. Name any two organisations working towards community health.
 5. Name the vaccine given to the mother during pregnancy.
 6. Name any two viral diseases.
 7. List any two ways in which food and water get contaminated.
 8. A patient comes with symptoms of swollen feet, legs and thighs showing an elephant leg like appearance. Identify the disease and the category of causative organism.
 9. Name any two diseases, against which protection is usually provided by vaccination.
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10. People in a certain village have been drinking water from a pond and eating unwashed vegetables plucked from the fields. After a few months they started complaining of symptoms such as abdominal pain, five to six mucous and blood containing stools/ motions per day. Identify the disease and the category of the causative organism.
11. List any two precautions that should be taken while disposing the garbage.
12. What is personal hygiene? Discuss any four activities that are included in personal hygiene.
13. Differentiate between communicable and non-communicable diseases. List any four ways of spread of communicable diseases.
14. What is the difference between first and third degree burn? What important precaution should be taken while handling them?
15. Why is community health important? List any five major tasks undertaken by community health centres.
16. What is immunization? List any four vaccines and age at which they should be taken as per National Immunisation Programme specifying the diseases.

C. Difficult But Try

1. Perform a survey in your area to list precautions people usually take to ensure good health for their family.
2. Make a list of diseases people have suffered in the last six months in your locality. Classify them on the basis of causative organisms and symptoms.
3. Visit a government hospital and find out about the immunization programme followed in our country. Tabulate the information giving the name of vaccine, age at which it is given and its functions.

ANSWERS TO CHECK YOUR PROGRESS

31.1

1. A state of physical, mental and social well being.
2. Food should be kept covered, at a cool place.
3. Liver, kidney, heart (any two)
4. Pathogens/germs and pesticides.
5. Carbohydrates, fats, proteins, minerals and vitamins.
6. Walking, playing

31.2

1. Malaria, Hepatitis-B, Tuberculosis, Polio, AIDS
 2. Government hospitals and dispensaries.
 3. Kerosene
 4. Flies and mosquitoes
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31.3

1. Influenza, Hepatitis, Tuberculosis
2. Non-communicable
3. Polio, Tuberculosis, Typhoid, Hepatitis, Diphtheria, Tetanus (any two)
4. Liver
5. Filariasis/ Elephantiasis

31.4

1. First aid
2. Stick, umbrella, long scale rod (any two)
3. Cold/ ice cold water
4. Soap and water
5. Fracture

GLOSSARY

Antibiotics : Chemicals secreted by bacteria and some fungi for their own protection, also used to cure certain infectious diseases.

Dehydration : Excessive loss of water from body tissues.

Epidemic : A disease that affects a large number of individuals in a population in a particular area.

Hygiene : Keeping personal body and surroundings clean.

Immunity : Body's ability to fight and protect against diseases.

Toxins : Poisonous substances

Vaccination : Introduction of weakened germs in the body to develop body's resistance against communicable diseases.
