

Board – ICSE

Class- VIII

TOPIC – Diseases And First Aid

1. Define the following: -

**(i) Health:** - Health is defined as a state of complete physical, mental and social well-being, and not merely an absence of disease or infirmity.

**(ii) Disease:** - Disease is a departure from normal health through structural or functional disorders of the body.

**(iii) Communicable diseases:** - Communicable diseases are those diseases which spread from an infected person to a healthy person by the entry of microorganisms/pathogens.

**(iv) Non-communicable diseases:** - These diseases are not caused by any germs; therefore, these diseases cannot spread from an infected person to a healthy person. These may be caused due to improper functioning of the body organs.

**(v) Pathogens:** - The disease-causing germs are called pathogens.

**(vi) Droplet infection:** - Many viral and bacterial diseases of the respiratory tract are transmitted through droplets i.e. by sneezing and coughing. These fine droplets remain suspended in the air. The healthy person gets the infection by inhaling the same air containing these suspended droplets.

**(vii) Public Hygiene:** - Public hygiene is as important as personal hygiene. It involves proper disposal of human excreta and domestic wastes.

**(viii) Vaccination:** - Vaccination is the practice of artificially introducing germs or germ substances into the body for developing resistance to particular diseases. Scientifically, this practice is called prophylaxis and the material introduced into the body is called the vaccine.

**(ix) Immunization:** - It is an artificial way of achieving protection from infections by the introduction of dead or weakened germs into one's body.

**(x) First Aid:** - It is the immediate care or help given to a patient at the time of medical emergency before he or she is taken to a doctor.

**(xi) Vectors:** Vectors are those organisms which carry germs from a source of infection but themselves do not get the infection.

Ex.: mosquitoes, house flies etc.

2. How does the communicable disease spread in the society? Communicable disease gets spread by

a) Direct method or b) Indirect method.

**(a)** Direct method:

In this method, diseases are spread through direct contact with an infected person. Ex. Diseases like measles, chicken pox and fungal infections.

**(b)** Indirect method: In this method, diseases are spread through:

(i) Touching and sharing items used by the infected person:

The use of same towel, handkerchief or same bed, or sharing the same utensils which were handled by the patient may spread the disease to a healthy person.

(ii) Contaminated food and water or drink:

Many intestinal diseases are spread by the intake of vegetables and fruits that are not washed properly or are washed with contaminated water. The germs on infected vegetables and fruits on reaching our alimentary canal, multiply and cause the disease.

(iii) Vectors: Vectors carry germs from a source of infection and transfer them to a healthy person.

For ex.: Mosquitoes while feeding on the blood of a malaria patient, gain the germs in their bodies and get them transferred into the blood stream of a healthy person.

Houseflies carry germs from garbage or sewage and deposit them on food. A person will get the disease if he eats such contaminated food.

### **3. What are the preventive measures for diseases?**

#### **I: Public Hygiene:**

- Sewage and chemical wastes could not be released into the water bodies. Sewage should be chemically treated first before being released into the water bodies. Sewage should be chemically treated first before being released into the water bodies to avoid water-borne diseases.
- There should be proper sewer lines connected to sewage treatment plants.

#### **II :Healthy Environment:**

- Maintain a healthy environment to prevent the spreading of diseases due to the breeding of mosquitoes, houseflies and microorganisms.
- Garbage should be kept in covered bins so that flies do not breed on them.
- Do not allow water to stagnate outside your house and in your neighborhood. All the drains should be covered. This will prevent breeding of mosquitoes.
- Contamination of drinking water with faeces (animal or human excreta) causes a number of diseases.

### **4. State the ways in which vaccines are prepared, giving the name of one disease for which each type of vaccine is used.**

A vaccine can be prepared by four methods:

(a) Using killed germs

Ex. TAB vaccine for typhoid

Salk's vaccine for poliomyelitis

(b) Using living weakened germs: Living germs are treated in such a way that they cannot cause the disease. They can induce antibody formation in the body.

Ex. Vaccine for measles BCG vaccine for tuberculosis

(c) Using fully violent living germs.

Ex. The vaccine for smallpox. (Smallpox has been eradicated from India.)

(d) Using Toxoids : These are extracts of toxins secreted by bacteria, and these poisons are made harmless by the addition of formalin, to retain the capacity to produce antibodies. (antitoxins)  
Ex. Vaccine used for diphtheria and tetanus.

**5. Burns can be superficial burns, deep burns or chemical burns. What emergency care you would suggest in each case.**

**Ans.** First aid for burns depend on the degree of burns. One should not pull away clothes stuck to burnt areas and don't cut blisters. Apply any oily substance (ointment, butter, Vaseline etc.) to the burnt skin surface.

- (a) In case of superficial burns, pour cold water over the burnt area. Then dry that portion and cover with sterile dressing.
- (b) In the case of deep burns, never use water, and cover the injured part with dressing.
- (c) In the case of chemical burns (due to acid and other chemicals), wash with running water for 10 minutes and then cover with dressing.

**6. What First aid should be provided in case of bleeding?**

- In case of bleeding, raise the affected body part to minimize the gravitational flow of the blood.
- Wash the cut surface with clean water, press the area with a piece of clean cotton wool, and if possible, apply some mild antiseptic.

**7. What First aid should be provided in case of fractures?**

- In case of fractures, lay the victim comfortably, and loosen or remove the clothes from the affected part.
- Do not move the fractured part/parts. If the fractured part in an arm, tie a sling to rest the arm on it.

**8. What First aid should be provided in case of fractures?**

- If anything falls in the eyes, do not rub them.
- Wash them gently with clean water.

**9. Describe the ways by which you can provide a first aid to a person who has become unconscious.**

- If someone falls unconscious, immediately lay the person comfortably on the bed.
- Loosen the clothes.
- Let fresh air come into the room.

**10. What First aid should be provided to a person who has swallowed poison?**

- In case some poisonous substance has been swallowed, make the patient drink as much salt water as possible, and try to induce vomiting.

**11. What First aid should be provided in case of snake bite?**

- In case of a snake bite, immediately squeeze out some blood from the wound and tie it tightly with a tourniquet above that spot to prevent spreading of venom into the blood stream.

**12. What First aid should be provided in case of sting?**

- In case of a bee or a wasp sting, pull out the sting of still in the wound, squeeze out some blood to force out the venom.

- Apply some alkali, like baking soda on that spot.

**13. What First aid should be provided in case of fever?**

- Fever is not a disease but it is a symptom of a disease.
- In case of high fever, immediately apply an ice pack or a piece of cloth dipped in ice-cold water on the forehead of the patient to bring down the body temperature.
- If the fever persists for more time, consult a doctor immediately.

**14. State the harmful effects of consuming tobacco.**

- Smoking and chewing tobacco or tobacco products increase the risk of lung cancer, heart attack and high blood pressure.
- Cough and irritation in the throat.
- Even nonsmokers sitting with active smokers may suffer from such diseases. This is known as passive smoking.

**15. State the harmful effects of consuming drinking alcohol.**

- Alcohol affects the mental and physical processes of the body.
- Alcohol may cause damage to the nervous system, blood vessels, the kidneys and the stomach.
- Excess alcohol causes damage to the liver and gets stored in the form of fat.
- Alcohol drinking impairs judgement and reduces self-control.
- It also affects muscular coordination of the body resulting in accidents.

**16. State the harmful effects of consuming drugs.**

- Drugs which cause an insensible condition in human beings are called narcotic drugs or psychotropic drugs. Ex. Morphine, cocaine, heroin and opium.
- These drugs cause serious damage to the nervous system and other organs of the body.
- They also cause respiratory diseases and heart problems.
- Due to the habitual use of drugs, addicts find it hard to give up on drugs easily and suffer from a variety of health problems and even early death.

**17. Name the following:**

- (i) Viral diseases: Influenza, Measles, AIDS
- (ii) Vector diseases: Malaria, Dengue, Chikungunya
- (iii) The scientist who first worked on vaccination: Edward Jenner
- (iv) A highly contagious viral infection of the respiratory system, usually spreads in children by contact.  
: Measles

**18. State the symptoms of:**

- (i) Influenza: Cold, fever and chills, spreads through droplet infection.
- (ii) Measles: Nasal discharge, redness of the eyes, coughing, fever and eruption of red papules.
- (iii) AIDS: Weakens the immunity which makes the infected person prone to many other infectious diseases.
- (iv) Malaria: intermittent high fever and chills.