Ch-13 Why Do We Fall Ill?

1. What is health?
Health is the state of physical, mental and social well being.

2. State two conditions essential for good health
1. Disease free environment.
2. Social equality and harmony.

3. State any two conditions essential for being free of disease.
1. Public cleanliness (community hygiene)
2. Good economic conditions to ensure good health.
4. What are signs and symptoms?
Symptoms of diseases are things that we feel as being wrong with our body.
E.g. – head ache, loose motion , giddiness
Signs of disease are what physician will look for on the basis of the symptoms.

5. How does a physician pinpoint a disease?
A physician pin points a disease by getting laboratory tests done on the basis of signs of the disease.

6. What are acute and chronic diseases?
Diseases that last for a short period are called acute diseases. Ailments which last for long time are called chronic diseases.

7. Differentiate between acute and chronic diseases
Acute diseases last for a short duration. An acute disease which is over very soon will have not enough time to cause a major effect on the health.
Chronic diseases last for a long time or even a life time and it can cause major effects on health.

8. What are infectious diseases or communicable disease?
Diseases caused by microbes are called infectious diseases. Microbes can spread in community and the diseases caused by them spread with them.

9. Give two examples of non infectious diseases.
Cancer, High Blood pressure.

10. What are the organisms that cause diseases?
Bacteria, fungi, virus, protozoa, and different kinds of worms.

11. Name 4 diseases caused by virus.
Common cold, dengue, AIDS and influenza.

12. Name 4 diseases caused by bacteria.
Typhoid, cholera, tuberculosis, anthrax

13. What causes ringworm?
Fungus

14. Write one difference between virus and bacteria.
Virus lives and multiplies only in host cells, but bacteria can be grown by a culture medium.

15. How do antibiotics affect bacteria?
Antibiotics block bio chemical pathways important for bacteria.

16. What is the effect of Penicillin on bacteria?
The antibiotic penicillin blocks the bacterial processes that build the cell wall. As a result the growing bacteria become unable to make cell walls that easily and they die.

17. How does HIV (human Immuno Deficiency Virus) infection affect the body?
In the HIV infection, the virus goes to the immune system and damages its function. Thus many of the effects of HIV – AIDS are because the body can no longer fight off the many minor infections we face every day. A small common cold can become pneumonia; a minor gut infection can cause major diarrhoea and blood loss. Ultimately these infections kill the people suffering from AIDS.

18. On what does the severity of a disease depend?
Severity of a disease depends on the type of microbe and the number of microbes in the body.

19. Give reason for why making of antiviral drug is difficult.
Viruses have very few biochemical mechanisms of their own. They use our cells and use our machinery. There are few virus specific targets to aim at.

20. How do infectious diseases spread?

1. Air – By droplets thrown out by an infected person when he coughs or sneezes. This is more common in conditions of overcrowding.

    Example – pneumonia, tuberculosis

2. Water – excreta from infected person get mixed with the drinking water. The microbes enter new hosts and cause diseases in them.

    Example – typhoid, cholera

3. Sexual Contact Syphilis, AIDS

4. Biological vectors - lice, fleas, mites and mosquitoes.. Mosquitoes spread diseases like Filariasis, Dengue and Malaria.

21. How does AIDS spread?

1. Sexual Contact with an infected person
2. Blood to blood contact through contaminated injection needles, razors, etc.
3. Babies born to infected mothers are also infected with the disease.

22. What are the points of entry of the following microbes?

1. Tuberculosis causing Bacteria– they enter from the air through the nose.
2. Typhoid causing bacteria – they enter the mouth through contaminated water or food.
3. Malaria causing microbe – mosquito bites on the skin.

23. What are the symptoms

(1) if lungs are infected?

cough and breathlessness

(2) if the liver is infected

the person will suffer from jaundice

(3) if the microbe targets the brain

head aches, fits, unconsciousness and vomiting will take place.

24. What are the common effects of diseases?

Inflammations, swelling, pain and fever.

25. What causes inflammations?

The immune system recruits many cells to the affected area to kill the microbes. This causes the inflammations.

26. What are the two ways in which we have to treat infectious diseases?

1. Symptoms directed treatment.

    Example – to reduce fever, pain, to stop loose motions.

2. To kill the microbe causing the disease. Medicines that can kill the specific group of organisms are used.

27. Why is prevention of disease better than cure?

Once a person has a disease the body functions are damaged and may never recover completely.

Treatment takes time. The person affected by a disease is bedridden for sometime.

Infected person is a source of infection to the other people.

28. Why are we asked to take bed rest during illness?

This is to conserve energy so that it will enable us to use this energy to help in the healing process.

29. How can we prevent diseases?

General – We can prevent exposure to microbes. For air borne infections, have living conditions which are not overcrowded.

For water borne microbes, provide safe drinking water. Treat the water to kill microbes.

Proper public hygiene, to dispose the wastes and to avoid mosquitoes, rats, etc., from breeding to prevent infectious diseases.

Second basic principle is the availability of proper and sufficient food for everyone.

Specific – We can develop immunity to diseases by either having the diseases once, by getting exposed to the microbes or by vaccinations

30. List some diseases against which vaccines are available.

Tetanus, Whooping Cough, Diphtheria, measles, polio, meningitis, Hepatitis A, T B, etc