

Why do we fall ill?

What is health?

It is the state of being well so that one can perform social, physical, and mental functions properly. For example:- We say that a person is healthy if they can perform their day to day tasks well.

Significance of health.

- Health is therefore a state of being well enough to function well, physically, mentally and socially.
- Personal and community issues both matter for health.
- The health of all organisms will depend on their surroundings of their environment.
- Social equality and harmony are therefore necessary for individual health.

Another important factor for proper health is food.

Distinction between "healthy and disease-free" condition:
The word disease literally means being uncomfortable due to a particular cause. Poor health does not always mean that we are suffering from a particular disease. Our health is affected by our physical, mental and social condition. But every disease has a particular cause.

The conditions essentials for the good health are:

- Availability of clean drinking water.
- Availability of adequate, nutritious food.
- Social equality and harmony.

cause of disease

When there is disease, either the functioning of one or more systems of the body will change for the worse.

These changes give rise to symptoms and signs of diseases.

Symptoms of diseases are the things we feel as being 'wrong'.

So we have headache, we have cough, we have loose motions, we have a wound with pus; these all are symptoms.

These indicate that there might be disease, but they don't indicate what the disease is.

For example: a headache.

Symptoms: Series of events occurring that often point to a disease or conditions.

Sign

→ Effects of diseases that can be noticed by others.

Example: Rashes, Blood nose etc.

Symptoms

→ Effects of disease that can be felt by individuals himself.

Example: Headache, Fatigue etc.

Types of diseases

Disease based on time duration-

Acute

Based on causative agent

Non infectious disease

Chronic

Infectious disease

Time duration

Acute

→ disease last for only very short periods of time called acute disease.
For example: common cold, viral fever, chicken pox etc.

Chronic

→ disease can last for even lifetime and these are called chronic disease.
For example: cancer, Aids, Asthma etc.

Causative Agent

Non infectious

Not caused by the germs
For example: Cancer, Diabetes
The non infectious diseases are not spread from infected persons to healthy person.

Infectious disease

Caused by the germs
Infectious disease can rapidly spread from infected persons to the healthy persons.
Example: cholera, T.B, chickenpox etc

Malnutrition:

A term used to refer to any condition in which the body does not receive enough nutrients for proper function

Eg: BeriBeri, Scurvy, nightblindness

Heredity:

A disease caused by genetic factors transmitted from the parent to the offspring. also known as an inherited disease.

Eg: Colour blindness

Organ dysfunction:

Abnormality or impairment in the function of a specified bodily organ or system.

Eg: kidney stone, low B.P.

Means of spread

Types of disease	Causing Factor	Examples
Airborn	Caused by germs, virus or bacteria in the air.	common cold, T.B.
Food born	caused by germs, (toxins, fungi, bacteria) present in the food.	Food poisoning, Typhoid.
Waterborn	caused by drinking contaminated Water.	cholera, Amoebiasis.
lifestyle disease	Occur due to poor or unhealthy lifestyle.	Heart disease, diabetes
Vector born disease	Caused due to the Animals carrying infectious agents from a sick person.	Malaria, dengue, fever.
Sexually transmitted disease-	Caused due to sexual contact from one persons to another.	ATDS, Syphilis

Infectious agents

Infectious agents	Disease
virus	common cold Influenza AIDS, Dengue, Hepatitis-B chicken pox, SARS (Severe Acute Respiratory)
Bacteria	Typhoid, cholera, T.B, Anthrax Acne, tetanus, Food poisoning
Fungi	Malaria, Protozoan, Athlete's foot, Ringworm etc.
Protozoa	Malaria, sleeping sickness, etc.
Worm	Elephantiasis

Principles of Treatment

Whenever we get sick, there are certain steps taken by us to treat the ailment.

There are primarily two ways to treat a disease:

1. Reduce the effects of the disease

Medicines are provided to reduce the pain or bring down the fever.

Bed rest is advised so that the body gets some rest.

II. Kill the cause of the disease.

Medicine that kills the pathogens. Each microbes undergoes some special biochemical life process which helps them to survive. The intake of certain drugs that block these biochemical processes can help in killing the microorganism causing disease.

Antibiotics

- Antibiotics are chemicals produced by microorganism (mainly bacteria and fungi) which at low concentration levels, have ability to destroy or inhibit the growth of pathogens.
- The term antibiotics are coined by the Waksman.
- The first antibiotic was penicillin, which was ~~destroyed~~ developed in 1940's in response to the need to treat soldiers in the Second World War.

Principle of prevention

There are three limitations of this approach to dealing with infectious disease:

- The first is that once someone has a disease, their body functions are damaged and may never recover completely.
- The second is that treatment will take time, which means that someone suffering from a disease is likely to be bedridden for some time even if we can give proper treatment.
- The third is that the person suffering from an infectious disease can serve as the source from where the infection may spread to other people.

this leads to the multiplication of the above difficulties.

it is because of such reasons that prevention of diseases better than their cure.

- But at the end, how can we Prevent Disease?
- Water borne diseases can be preffe prevented by always having safe and pure drinking water.
- Airborn diseases can be prevented by avoiding overcrowded places in keeping the environment clean.
- vector born → disease can be prevented by keeping our surroundings clean and maintaining public hygiene.

Immunity