Ayaz Sir's CBSE Coaching

Class 9 Biology

Why do we fall ill.

Disease:

Any condition which impairs the health is called as disease.

Health:

According to WHO, "Physical, mental and Social well being of a person is called as health."

Symptoms:

Something that a person suffers from that indicates a particular disease is called as symptoms.

Syndrome:

Group of symptoms is called as syndrome.

Causes of diseases:

A) Biological Cause: Disease caused by living organism.

1.Bacterial Disease: Disease caused by Bacteria

e.g. Typhoid, Leprosy

2. Viral Disease: Disease caused by Viruses

e.g. AIDS, Mumps

3. **Protozonal Disease**: Disease caused by protozoa

e.g Malaria, Leishmaniasis

4. **Fungal Disease**: Disease caused by fungus

e.g. Ringworm, Athlete foot

5. **Rikettsia**: Disease caused by primitive bacteria

e.g. Typhus

B) Nutritional Disease: Disease caused due to lack of nutrition.

Protein : Kwashiorkar Protein and : Marasmus

Carbohydrate

Vitamin A : Night Blindness

Vitamin B : Beri Beri
Vitamin C : Scury
Vitamin D : Rickets
Vitamin E : Sterility

Vitamin K : Haemorrhage

Calcium : Osteoporesis and Osteomalcia

Iodine : Thyroid disorder

Iron : Anaemia

C) Chemical Disease: Disease caused by chemicals are called as chemical diseases.

Mercury Poisoning : Minamata disease Cadmium Poisoning : Itai Itai disease

Fluorine : Dental and Skeletal Fluorosis

D) Hormonal Diseases: Disease caused due to hormones

Growth hormone (excess) : Gigantism, Acromegaly

Growth hormone (low) : Dwarfism

Lack of Insulin : Diabetes mellitus

E)Genetical Disease: Disease caused due to genes or chromosomes

Haemophilia, Turner's syndrome, Klinfelter's syndrome etc.

F)Mechanical Disease: Disease caused by accident

Fractures of Bones

G)Physical Disease: Disease caused by physical factors like temperature, light etc.

Sun stroke, cough and cold etc

Sources of Diseases:

A)Intrinsic or Internal factors: Disease causing factors lie within the body

Genetic disorders

Hormonal disease

Diseases related to immune system

B)Extrensic or External Factors: Disease causing factors lie outside the body

Unbalanced diet

Environmental Pollutant

Tobacco, alcohol, narcotic drugs

Classification of diseases on the basis of duration:

Acute Disease : Disease which remains for very short time is called acute disease.

e.g. Cough and Cold

Chronic Disease: Disease which remains for very long time is called chronic disease.

e.g. TB, Diabetes

Types of diseases:

<u>a)Communicable disease:</u> Disease which is spread from one person to another by direct or indirect contact is called as Communicable disease.

<u>1.Contagious disease</u>: Disease which is spread from one person to another by direct contact is called as Contagious disease.

e.g chicken pox

<u>2.Non contagious disease</u>: Disease which is spread from one person to another by indirect contact is called as Non contagious disease.

e.g Typhoid, Cholera

b)Non-Communicable disease: Disease which is not spread from one person to another by direct or indirect contact is called as non Communicable disease.

e.g. Cancer, Heart attack

Modes of Transmission or Spread:

Diseases can be spread by following ways:

1.By Direct Contact : Leprosy, chicken pox

2.By Droplet : TB , Influenza

3. Air Borne : Common cold, Influenza

4. Water Borne : Cholera, Typhoid

5.Soil Borne : Tetanus 6.By animal Bite : Rabies

7.Fomite Borne : Leprosy, Chicken pox
 8.Vector Borne : Malaria, Filaria, Dengue etc
 9.Transplacental Transmission : AIDS, Hepatitis

Antibiotics: The chemical substances produced by one micro organism and are used to kill other micro organism is called as Antibiotics. Antibiotics in low concentration inhibit growth of micro organism or pathogens. It affects biological pathway of organism and kills them.

e.g Penicillin, Tetracyclin, Azithromycin etc.

Vaccination:

Inoculation of dead, harmless or weakened entities in body which stimulate antibody production in body is called as vaccination.

It brings immunity in body and improves our immune system against any infectious microbes. Hence it is also called as immunization.

Antigen:

Any foreign material that stimulate production of antibody in animals is called as antigen.

Antibody:

An antibody is a glycoprotein which is produce by defence system of body as a result of inoculation of antigen is called as Antibody.

Allergy:

Hypersensitivity of a person to some foreign substance coming in contact with or entering the body is called as allergy.

Allergens:

The substance that causes allergy is called as allergens.

Diseases caused by virus:

Dengue Virus Dengue fever Influenza virus Influenza Mumps virus Mumps Polio virus **Poliomylitus** HIV **AIDS HBV Hepatitis** Rubella virus Rubella Rabies Rabies virus Varicella zoster Chicken pox Variolla virus Small pox

Diseases caused by Bacteria:

Bordetella pertussis whooping cough

Corynebacterium diphtheria Diptheria

Mycobacterium tuberculosis TB

Mycobacterium leprae Leprosy
Vibreo cholerae Cholera
Treponema pallidum Syphillis
Salmonella typhii Typhoid
Clostridium tetani Tetanus
Neisseria gonorrheae Gonorrhoea

Diseases caused by Vector:

House fly Cholera, Dysentry
Tse -Tse Fly Sleeping sickness

Sand fly Kala azar
Female anopheles Malaria
Rat Plague
Aedes mosquito Dengue
Culex mosquito Filariasis

Diseases caused by Chemicals:

Phosphorous Damage to respiratory and vascular system

Fluorides Dental fluorosis

Pesticides , DDT Malfunctioning of kidney
Lead Damage to liver and Kidney

Hydrocarbons Carcinogens
Cadmium Itai-Itai disease
Mercury Minamata disease
Radio active waste Gene mutation

Diseases caused by Deficiency:

Calcium Rickets, Tetany Phosphorous Rickets, Tetany

Sodium Improper muscle contraction

Potassium Nervous depression

Iron Anaemia

Iodine Thyroid disorder Vitamin A Night blindness

Vitamin B Beri beri
Vitamin C Scury
Vitamin D Ricket
Vitamin E Sterility
Vitamin K Haemorrhage
B-complex Bleeding gums

Vitamin B2 Cheiolsis
Vitamin B3 Pellagra
Vitamin B6 Dermatitis

Vitamin B9 Macrocytic Anaemia Vitamin B12 Pernicious Anaemia

Diseases caused by Fungus:

Aspergillus Aspergillosis

Coccydioides Coccidiodomycosis

Cryptococcus Meningitis

Diseases caused by Protozoa:

Entamoeba Amoebiasis
Plasmodium Malaria
Leishmania Leishmaniasis
Trypanosoma Trypanosomiasis

Diseases caused by Helminth:

Ascaris Ascariasis
Taenia Taeniasis
Wucheria Filariasis