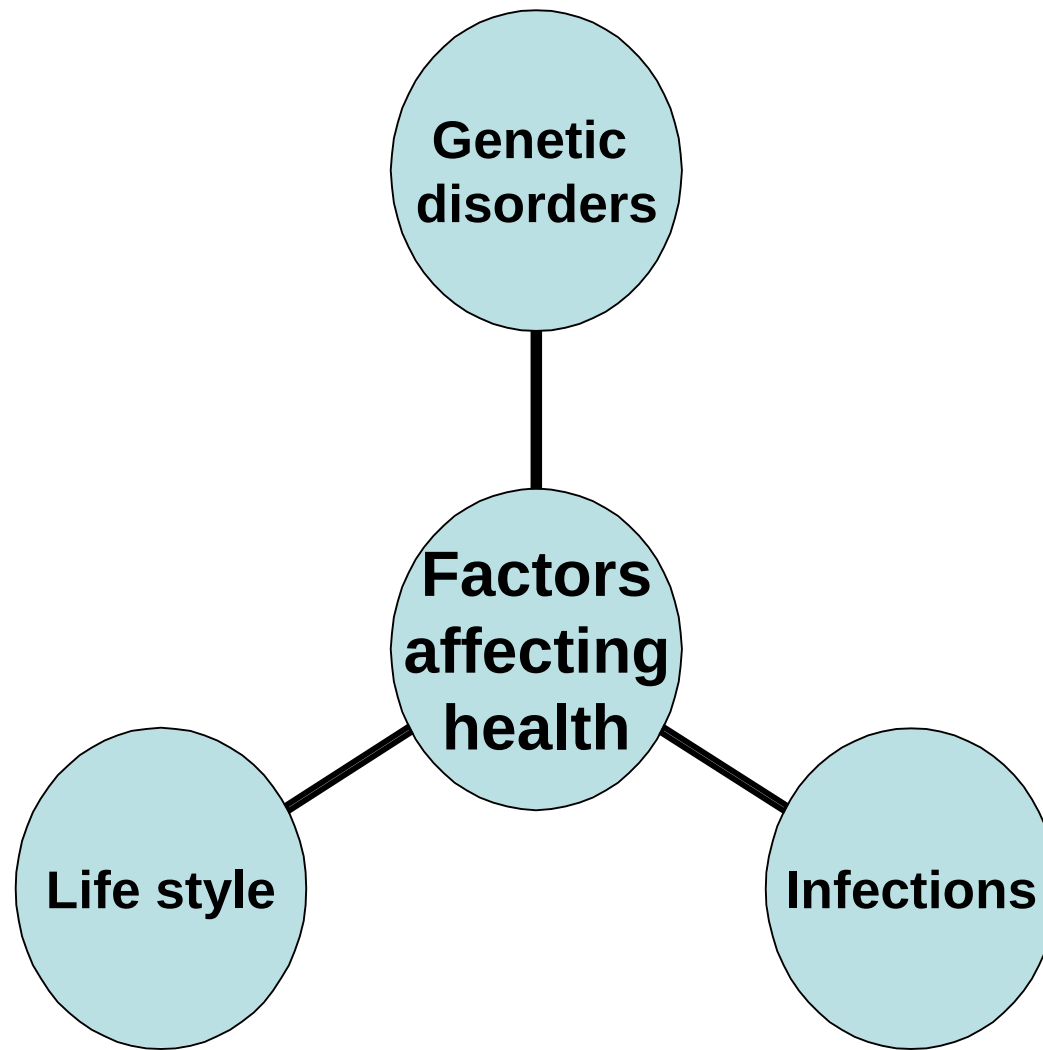


Health

A state of complete
physical, social and mental
well being .



How to achieve good health

- Awareness about diseases and their effect
- Vaccination
- Proper disposal of wastes
- Control of vectors
- Maintenance of hygienic food and water resources

Disease

- Functioning of one or more organs or systems of the body is effected
- Characterized by various signs and symptoms

Types of diseases

- Infectious
- Non - infectious

Typhoid

**Caused by *Salmonella typhi*
and detected by widal test**

Symptoms

- Sustained high fever
- Weakness
- Stomach pain
- Constipation
- Headache
- Loss of appetite
- Intestinal perforation and death in severe cases

Mode of transmission

- Food and water contaminated with faeces of the patient

Preventive measures

- Proper community sanitation
- Screening of water supply and food from contamination by flies
- Maintaining personal cleanliness
- Typhoid vaccine provides immunity for about three years

Pneumonia

Caused by *Streptococcus pneumoniae* and
Haemophilus influenzae

Symptoms

- Fever
- Chills
- Cough
- Headache
- Lips and nails may turn gray to bluish in colour in severe cases

Mode of transmission

- Disease spreads by sputum of the patient
- Pneumococci are inhaled and get lodged in the bronchioles

Common cold

Caused by Rhinoviruses

Symptoms

- Nasal congestion and discharge
- Sore throat
- Cough
- Headache
- Tiredness

Mode of transmission

- Disease spreads by sputum of the patient
- The viruses are transmitted through inhalation of droplets resulting from cough or sneezes of an infected person
- Also spreads through contaminated objects such as utensils, books, pens etc.

Malaria

Caused by *Plasmodium vivax*,
Plasmodium falciparum, and
Plasmodium malaria

Symptoms

- Tiredness
- Headache
- Muscular pain
- During the fever, the patient feels chilly and shivers and has acute headache, nausea and high temperature.
- After a few hours, the body perspires and the temperature becomes normal.

Mode of transmission

- Parasite is carried from the infected to the healthy persons by the female Anopheles mosquito

Amoebic dysentery (Amoebiasis)

Caused by *Entamoeba
histolytica*

Symptoms

- Constipation
- Abdominal pain and cramps
- Stools with excess mucous and blood clots

Ascariasis

Caused by *Ascaris*, the
common round worm

Symptoms

- Internal bleeding
- Muscular pain
- Fever
- Anemia
- Blockage of intestinal passage

Elephantiasis or filariasis

Caused by *Wuchereria* ,the filarial worm (*W. bancrofti* and, *W. malayi*)

Effects of filariasis

- Chronic inflammation of the organs in which they live for many years
- Gross deformities of lower limbs and genital organs

Ringworms

Caused by fungi belonging
to the genera *Microsporum*,
Trichophyton and
Epidermophyton

Symptoms

- Appearance of dry ,scaly lesions on skin , nails and scalp
- Intense itching

Immunity

Ability of the host to fight the
disease causing organisms

Innate immunity

- Physical barriers
- Physiological barriers
- Cellular barriers
- Cytokine barriers

Acquired immunity

- Humoral immune response
- Cell mediated immune response

Immune Response

- Primary immune response
- Secondary immune response

Immunity

- **Active immunity**
- **Passive immunity**

Allergy

The exaggerated response of the immune system to certain antigens present in the environment

Common allergens

- Mites in dust
- Pollens
- Animal dander

Symptoms

- Sneezing
- Watery eyes
- Running nose
- Difficulty in breathing

Treatment

- Anti-histamine
- Adrenalin
- steroids

Autoimmunity

Body attacks self cells

Immune system

- Lymphoid organs
 - Primary lymphoid organs :
bone marrow and thymus
 - Secondary lymphoid organs :
spleen, lymph nodes, tonsils,
Peyer's patches of small intestine
and appendix
- Tissues
- Cells
- Soluble molecules like antibodies

Transmission of AIDS

- Sexual contact with infected person
- Transfusion of contaminated blood and blood products
- By sharing infected needles as in case of intravenous drug abusers
- From infected mother to her child through placenta

Efforts of National AIDS Control Organisation and other NGO's

- Making blood safe from HIV
- Ensuring the use of only disposable needles and syringes
- Free distribution of condoms
- Controlling drug abuse
- Advocating safe sex
- Promoting regular check-ups for HIV in susceptible populations

Cancer

Properties of cancerous cells

- More rounded
- Loss of contact inhibition
- Reduced requirement of serum
- Uncontrolled cell division

Tumor

- Benign tumors
- Malignant tumors

Causes of cancer

- Chemicals
- Radiations
- Viral oncogenes
- Cellular oncogenes/ proto oncogenes

Cancer detection and diagnosis

- Biopsy and histopathological studies
- Radiography
- Computed Tomography
- Magnetic Resonance Imaging
- Antibodies against cancer specific antigens

Treatment of cancer

- Surgery
- Radiation therapy
- Immunotherapy
- Chemotherapy

Drug Abuse

Drugs are taken for a purpose other than medicinal use or in amounts /frequency that impairs one's physical, physiological or psychological functions

Opioids

- Bind to opioid receptors
- Chemically diacetylmorphine
- White, odourless, bitter crystalline compound
- Extracted from the latex of *Papaver somniferum*
- Taken by snorting and injection
- Depressant and slows down body functions

Cannabinoids

- Bind with cannabinoid receptors present in brain
- Obtained from the inflorescence of *Cannabis sativa*
- Marijuana, hashish, charas and ganja are produced from various combinations of flower tops, leaves and resin
- Taken by inhalation and oral ingestion
- Cardiovascular system is affected

Cocaine

- Obtained from *Erythroxylum coca*
- Interferes with the transport of dopamine
- Taken by snorting
- Stimulates central nervous system, causes hallucinations in excessive dosage
- Produces a sense of euphoria and increased energy

Tobacco

- Smoked, chewed or used as a snuff
- Contains nicotine which stimulates adrenal gland
- Increases chances of cancers of lung, urinary bladder and throat, bronchitis, emphysema, coronary heart disease, gastric ulcer

Other drugs

- Barbiturates
- Amphetamines
- Benzodiazepines
- Lysergic acid diethyl amides (LSD)

Adolescence

- Bridge linking childhood and adulthood
- Characterized by several biological and physiological changes

Causes of drug abuse

- Curiosity
- Need for adventure and excitement
- Experimentation
- Stress
- Unsupportive family structure
- Peer pressure
- The perception among youth that it is cool or progressive to smoke, use drugs or alcohol

Addiction

Psychological attachment to certain effects such as euphoria and a temporary feeling well being associated with drugs or alcohol

Dependence

Tendency of the body to manifest a characteristic and unpleasant withdrawal syndrome if regular dose of drugs/alcohol is abruptly discontinued

Prevention and control

- Avoid undue peer pressure
- Education and counselling
- Seeking help from parents and peers
- Looking for danger signs
- Seeking professional and medical help