

DISEASE

* Disease -

→ Disease are often known to be medical conditions, that are associated with specific systems and also abnormalities in body function.

→ Disease are classified into 2 types.

i) Communicable disease

ii) Non-communicable disease

i) Communicable diseases:-

→ Illness due to a specific, infectious agent capable of being directly or indirectly transmitted from one person to another causes communicable diseases.

→ Transmission method of communicable:

(i) Direct modes of transmission diseases.

→ This involves direct transmission of diseases from one body surface to another body surface, from one animal to another animal or from an animal to human or from human to human.

(ii) Indirect modes of transmission diseases:

→ This involves contact between a suspect and its equipment. For example an individual with the common cold may sneeze & the virus lands on a fomite, such as table cloth, hand towel etc.

(iii) Vector:

→ This type of disease transmission occurs when one living organism such as a tick or mosquito, transmits infectious disease in animals & human.

(iv) Droplet transmission:

→ When an individual with cold & cough sneezes, small droplets which contains virus ejected to another person.

(v) Water borne:

→ In this transmission of diseases the pathogen enters ^{into} the body of individual through water. eg:- dia rthoea.

(vi) Air borne:

→ This transmission of disease occurs through air.
eg:- Tuberculosis

* Control measures of communicable diseases:

(i) Handle & prepare food with safety
→ Food can carry germs, wash hand, utensils and surface when preparing any food
→ Wash vegetables, fruits and specially raw meat, fish before cooking.

(ii) Wash hand:

→ Often wash properly before and after eating.

(iii) Clean & disinfect commonly used surface

→ Germs can live on surface cleaning with soap & water is enough.

→ Disinfect your bathroom & kitchen regularly.

(iv) While coughing & sneezing use the sleeve of your shirt & handkerchief.

(v) Avoid sharing personal items that can be disinfected like toothbrush, towel, niddles.

(vi) Avoid touching animals wash your hands always after touching.

(vii) At the time of illness always stay at home.

(viii) Don't use personal items of any sick person and maintain distance from the person with illness.

(ix) Get vaccinated:

→ Vaccin with prevent many infectious diseases. It provide protection against many communicable diseases.

1. Chicken pox (varicella):

→ Chicken pox is a relatively mild childhood diseases, though adults do get infected. The mortality rate of chicken pox is comparatively lower. Chicken pox is the result of an initial infection with herpes virus ("varicella zoster"). The disease is acquired by entry of the virus into the respiratory system & the infection localises in the skin cells. Often about 2 weeks the infected skins become vesicular. During that time the vesicles are filled with pus, then rupture & form a scar. The infection during early pregnancy may cause serious fetal

damage.

2. Cold Fever :-

→ cold fever are caused by HSV-1 (Herpes Simplex Virus type 1) which is transmitted primarily by oral and respiratory routes.

3. Measles (Rubeola (sc. name)) :-

→ Measles is an extremely contagious viral disease, that is spread by respiratory route. Humans are the only reservoir from measles, the development of measles is similar to chicken pox. This infection last for 10-12 days have symptoms like common cold & rashes in the skin.

4. Tuberculosis (TB) :-

→ Tuberculosis is an infectious disease cause by the bacterium named myco bacterium tuberculosis. TB is most commonly acquired by inhaling the tubercle bacteria. TB patients suffers weight loss, coughing (often bringing of blood). TB is complete curable. TB can be prevented by using BCG vaccine (Bacillus of Calmette and Guerin). Very recently the

govt. has provided treatment for TB through DOTS
vector born

5. Filarisis (Elephantiasis) :-

→ Filarisis is caused by 'Wuchereria Ban Crofti'. This infection causes irritation & allergic reaction. This disease can be prevented by taking protection against mosquito bite. DEC (Diethylcarbamazine) is very effective against filarisis. A dose of 6mg/day, per kg of body weight taken orally for 30 days is most effective.

6. Malaria :-

Malaria is the one of the most wide spread disease in the world, caused by parasite belonging to the genus plasmodium. The 4 most important species of genus plasmodium

are
plasmodium vivax
" falciparum
" malariae
" ovale

Fever is the chief symptom of malaria. The fever is cyclic in nature. The nature of fever is also specific. It appears in 3 stages.

i) Cold stage (20 min. - 1 hr)

Sudden onset of fever with sensation of extreme cold.

ii) Hot stage (1 hr - 6 hr)

Temperature rises to 40°C or 106°F .

iii) Sweating stage (2 hr - 3 hr)

Extremely sweating

Malaria also have symptoms like weakness, nausea, vomiting, headache etc.

Chloroquine is the most commonly used drugs to malaria. Quinine is useful in malaria.

Now new drugs quinghaosu derivative & mefloquine introduced for treatment

7. # Amoebiasis:-

→ The clinical observation of this disease shows all the conditions produced in human body as a result of parasitic infection by *Entamoeba histolytica*. About 15% of the Indians are victims to this disease. This infection leads to clinical symptoms like 6-8 loose motions per day. Stool is foul smelling, acidic, non-sticky & mixed with blood. Infection may also lead to fever & weakness. Proper hygienic is the more effective preventive measures against amoebiasis. Anti-protozoan agent are used as drugs for treating of this infection. Metronidazole, Tetracycline, chloroquine are sum of the drugs against Amoebiasis. However, drinking water from water filter guaranteed enough protection against amoebiasis.

8. Ascariasis:-

→ Ascariasis is caused by the intestinal parasite named *Ascaris lumbricoides*. About $\frac{1}{4}$ of the world's population carry this parasite in their body. The adult worm resides in the small intestine of man. The toxic products of parasite

may cause typhoid like fever it also causes allergic reaction.
We can prevent it by maintaining proper sanitary condition
hygen, wash our hand before eating, eating fruits &
vegetables after properly washed.

Piperazine salts, Albendazole, oil of chenopodium,
are some of the effective drugs used against ascariasis.

* Non-Communicable Disease :-

→ The Diseases which are not transmitted from one person
to another is called non-communicable diseases.

eg:- Cancer

* Cancer :-

→ It is regarded as the deadliest killer of the 21st century.

It accounts for 9% of the total mortality through out
the world. By the end of 20th century, out of 50 million
deaths in the world per year, 5 million deaths due to cancer.

* Types of cancer :-

a) Lung cancer

b) Stomach cancer

c) Leukemia cancer

d) Throat cancer

e) Bone Cancer

f) Skin cancer

g) Breast cancer

* Symptoms :-

i) A lump or hard area at any part of body.

ii) Sudden change in a relevant or mole.

iii) Sudden change in digestive habit.

iv) Persistent cough

v) Unexplained weight-loss.

vi) Wounds not getting cured for long.

* Causes of cancer :-

① Smoking of tobacco.

② Consumption of alcohol.

③ Some cancers are caused as a result of viral infection.

↳ cancers like blood cancer or leukemia are genetic in origin.

* Prevention of Cancer :-

→ The early detection of cancer is the most effective way to fight this killer disease. Proper diagnosis of cancer can be made by examination of the affected tissues, use of scanners, endoscopy.

* Treatment :-

→ There is no any satisfactory treatment has yet discovered to cure cancer. chemotherapy & the radiation therapy are the common methods of treatment to cancer affected cell. Another effective treatment is the surgical removal of the affected tissue. However, an early detection makes the disease curable, but in case of late detection chances of survival are almost nil.

* Cardiovascular Disease :-

→ Cardio disease or heart diseases includes various diseases like disfunctioning of heart. Cardiac diseases are responsible for disfunctioning of the regular cardiac function.

→ Heart diseases are broadly categorised into the following types.

i) Coronary or ischaemic heart disease (IHD) :-

→ Ischaemic heart disease includes those disorders which result due to inadequate supply of oxygen to the heart muscles compared to its needs or caused by blocking of vessels of the heart by a blood clot. It is very dangerous & leads to heart failure. Its symptoms is unbearable heart pain. About 25% to 30% of death in the industrialised countries is due to IHD.

ii) Hypertensive heart disease :-

→ This is caused due to hypertension or high blood pressure.

iii) Infective or rheumatic heart disease :-

→ A person after repeated attack of rheumatic fever may suffer from rheumatic heart disease. The poisonous substances accumulate during rheumatic fever affects the functioning of heart. The symptoms of rheumatic fever are high temp, joint pain, chest, belly pain

ton oil, nausea, skin rashes etc. In this heart disease heart sounds are changed into heart "murmure."

iv) Idiopathic heart disease:-

→ Such diseases includes cardiac myopathy in which the muscles of heart becomes harder to pump blood. This causes due to addiction to drugs.

* Causes of heart diseases:-

i) High serum cholesterol enhances the risk of cardiovascular disease.

ii) Risk of heart attack is 2-3 times higher in case of diabetic patients.

iii) Modern life style & lack of exercise.

iv) Hypertension & use of drugs and alcohol.

* Preventive measures.

i) Reduction of fat intake.

ii) Reduction of body weight & blood pressure.

iii) Regular exercise & physical labours.

iv) Consumption of fruits, vegetables, legums, whole grains etc. Less salt in diet.

v) No smoking & no alcohol.

Avoid tension, overwork & strain.

vi) Mental relaxation to music & yoga.

* HIV & AIDS (Human Immuno deficiency virus)

→ Human Immuno deficiency virus & Acquired Immuno deficiency syndrome. AIDS is not a disease. It is a condition in

human body when the defence mechanism of the body is

gradually destroy. AIDS patients show a group of symptoms

Acquired → because AIDS is neither contagious, nor, infectious.

It is always acquired from someone else.

Immuno deficiency → The immunity system of the person with

AIDS is gradually weakened. Therefore, there is an immuno deficiency condition.

Syndrome → The illness does not show one symptoms but a group of symptoms called syndrome.