

Diseases and Prevention

Disease is a condition which impaired normal function of body

Diseases are caused by microorganism

- a) Bacteria (Tuberculosis, Cholera, Syphilis, Pneumonia, Tetanus)
- b) Virus (HIV, Dengue Fever, Common Cold, Measles)
- c) Fungi (Ring worm, Tinea)
- d) Protozoa (Malaria, Sleeping Sickness)

Tuberculosis

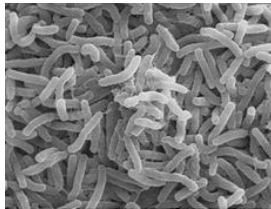


Tuberculosis is caused by bacteria called Tubercle bacilli. The bacteria will cause coughing which can further worsen to coughing blood if not treated

Prevention:

Immunization by BCG

Cholera



Cholera is caused by bacteria called Vibrio Cholera. Patients will experience severe diarrhea, dizziness, pain and dehydration.

Prevention:

- Drink boiled water
- Make sure you get vaccinated against cholera

Ringworm

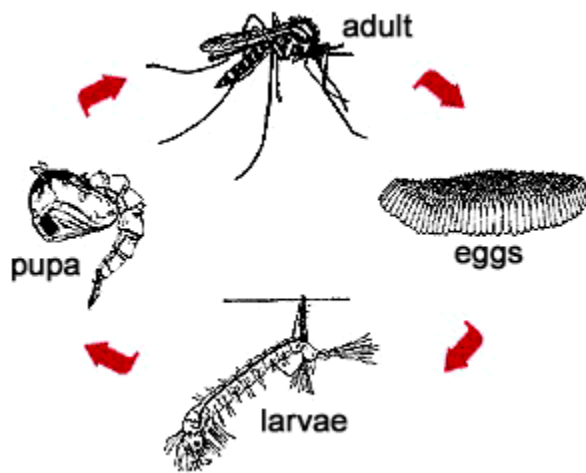


Ring Worm is caused by fungi infection. The fungus parasites on skin thus causing itchiness

Prevention:

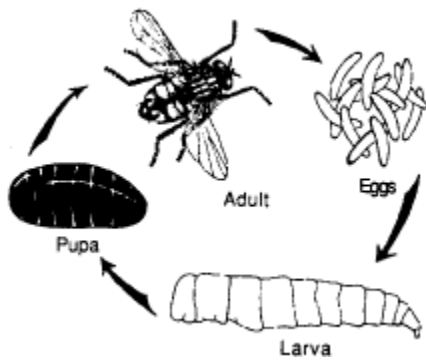
- Antibiotic fungus

Mosquito



- Usually breed in the stagnant water
- Larvae can be killed by adding layer of oil
- Rearing fish in stagnant water will control the breeding of mosquito

Housefly



- Housefly lay eggs in the rubbish and feces

Prevention

Prevention of diseases

- a) Sterilisation (Heat, Chemicals, Radiation)
- b) Immunity

Sterilisation Using Heat

- Cooking food can kill microorganism
- Boiling Water

Sterilisation Using Chemical

- Antiseptics - Can be used on the skin
- Disinfectants – Use to sterilized toilets and buildings

Disinfectants



Antiseptics



Sterilisation using Radiation

- Gamma Rays to kill microorganism
- Sunlight



Vectors and Pathogen

Vectors are organism which carries pathogens

Look at the list below

Vector	Pathogen	Disease
Housefly	Bacteria	Cholera
Mosquito Anopheles	Protozoa	Malaria
Mosquito Aedes	Viruses	Dengue
Rats	Fleas	Plague

Diseases can be spread through

- a) By contact
- b) By Food
- c) By water

There are many ways where diseases can controlled

- i. Controlling Vectors
- ii. Sterilization
- iii. Immunization

Sterilization can be carried out by using several method

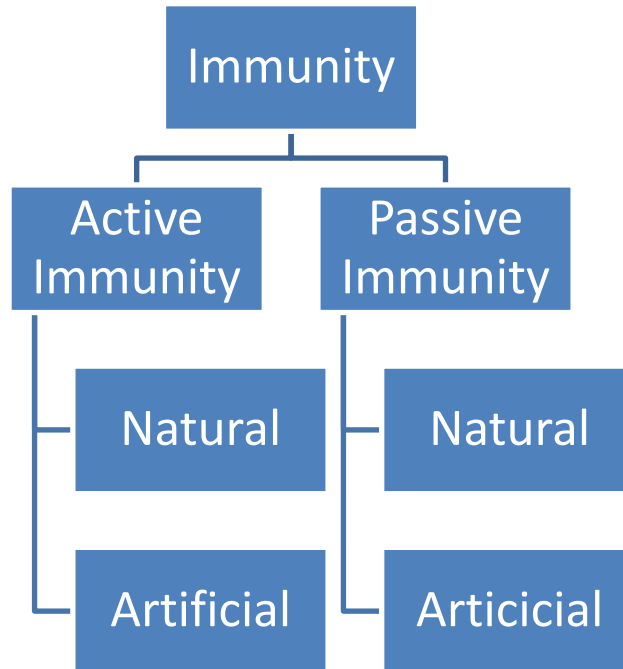
- a. Heating
- b. Chemicals
- c. Radiations

Sterilization	Method
Heat	<ul style="list-style-type: none"> - Boiling - Dry Oven - Autoclave(Using steam with high pressure)
Chemicals	<ul style="list-style-type: none"> - Antiseptics - Disinfectants
Radiations	<ul style="list-style-type: none"> - Ultraviolet - Gamma rays

Immunity

Our body can produce antibodies to fight pathogens that enters our body

Two types of antibodies



Active Immunity

Natural	Artificial
<ul style="list-style-type: none"> - Once in a life time - Antibodies developed once the body fight off diseases - Example: Chicken Pox 	<ul style="list-style-type: none"> - Vaccination - Example: Polio and BCG

Passive Immunity

Natural	Artificial
<ul style="list-style-type: none"> - Obtain from breast feeding - Obtain from foetus 	<ul style="list-style-type: none"> - Obtain from serum - Serum is antibody from animals - Example Disease: Diphtheria

What is the difference between Active Immunity and Passive Immunity

Active Immunity	Passive Immunity