

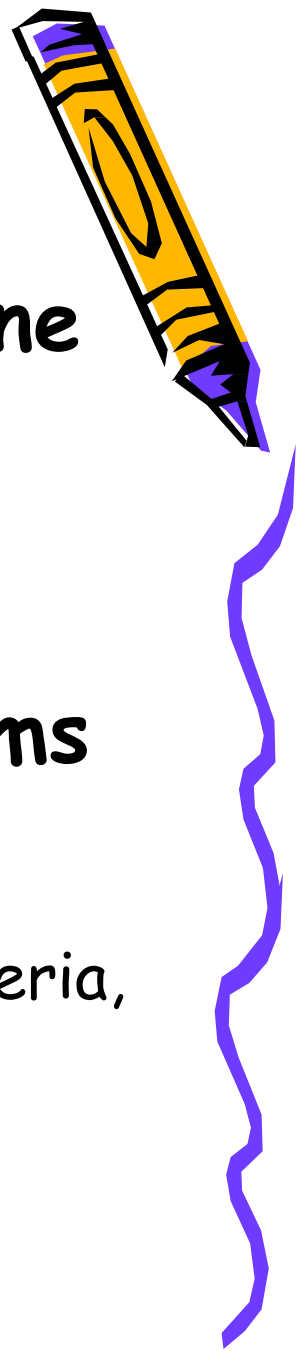


**Communicable disease**

# Communicable Disease

- Diseases that are spread from one person to the other.
- Diseases that are “catching”
- Diseases that are caused by germs or pathogens.

Examples of pathogens include: viruses, bacteria, p parasitic worms and fungi.

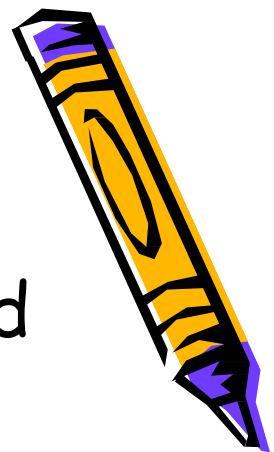


# Modes of Transmission

- Direct Contact: Exposure to infected body fluids such as blood or saliva.



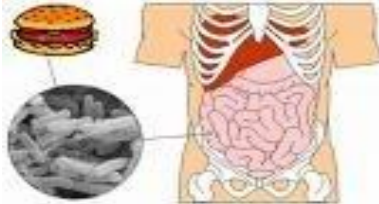
- Vectors/Reservoirs: Germs are spread by an animal or insect, usually through a bite.



# Cont..



- Food and Water: Food and water can become contaminated with germs and people can get sick when they eat or drink them.



- Airborne: Germs are spread through the air, for example when someone coughs or sneezes.




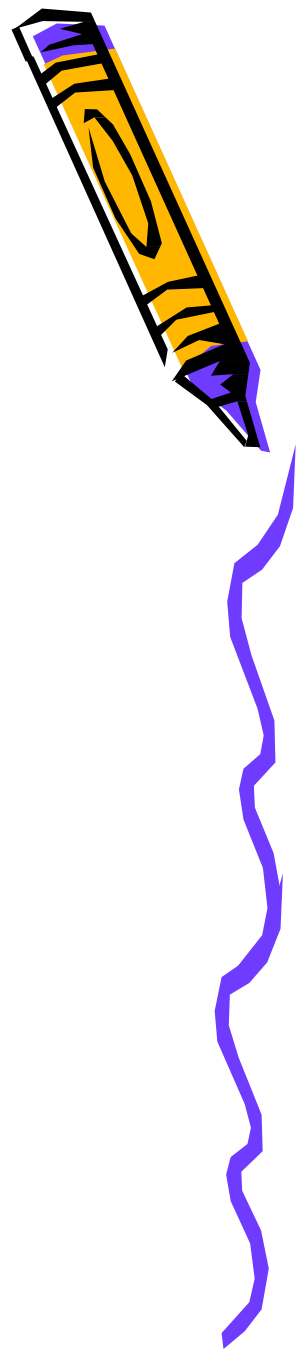
- Indirect contact: Pathogens remain on surfaces that were in contact with an infected person.



# Examples :

- ♣ Chicken pox
- ♣ Diphtheria
- ♣ Filariasis
- ♣ AIDS
- ♣ Poliomyelitis
- ♣ Malaria
- ♣ Measeles
- ♣ Tuberculosis
- ♣ Tetanus
- ♣ Rabies

 Sexually transmitted diseases

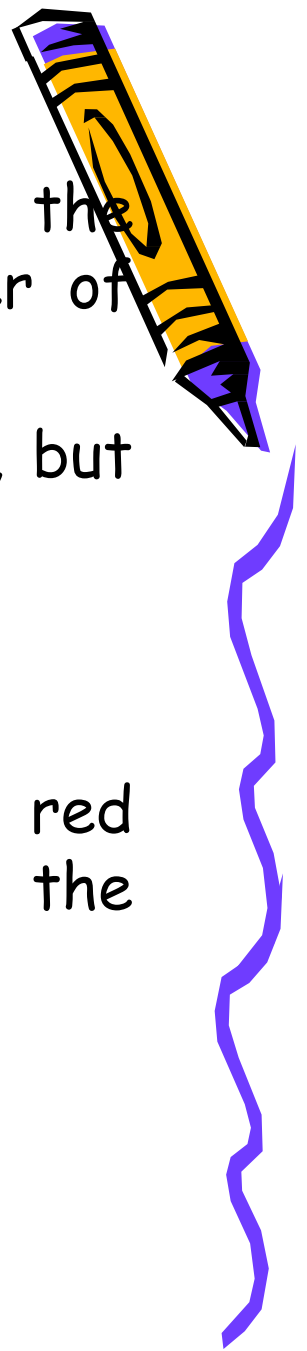


# Chicken pox

- Chicken pox is a common disease caused by the varicella zoster virus (VZV) which is a member of the herpes virus family.
- Usually occurs during childhood (normally 5-9) , but you can get it at any time in your life.

## Symptoms:

- small fever, body aches and loss of appetite.
- Within 1or 2 day, the rash appears, begins as red spots which then form blisters and spreads to the rest of the body.



# Prevention

- There are no actual cures for it ,but you can get a vaccine shot to help prevent it.
- Baths with uncooked oatmeal, baking soda, or cornstarch can help relieve itching.
- Tylenol is used for fever or pain relief. (Aspirin should be avoided.)
- Antiviral drugs such as Acyclovir may be prescribed.
- You can put Calamine lotion on the pocks to help stop the itching.



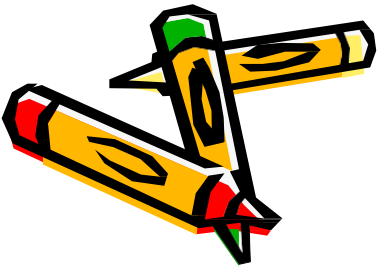
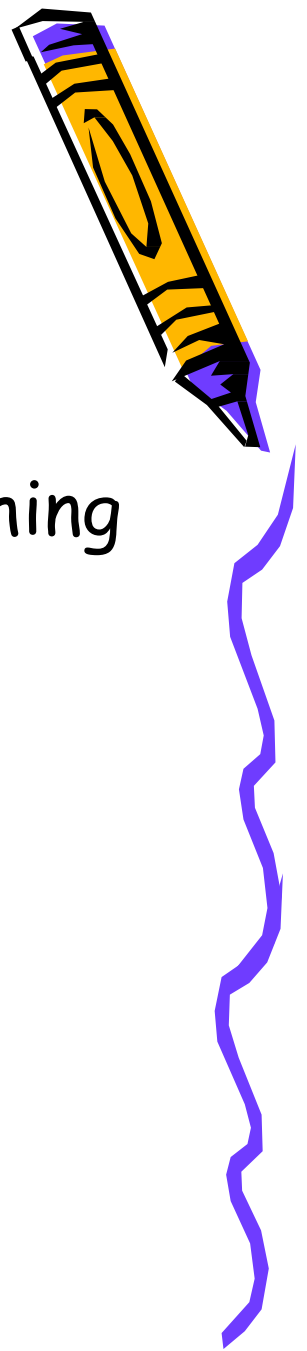
# Diphtheria

- It is caused by bacteria *Corynebacterium diphtheriae*.

Symptoms: Sore throat, Low fever, Swollen neck glands, Airway obstruction and breathing difficulty, Shock.

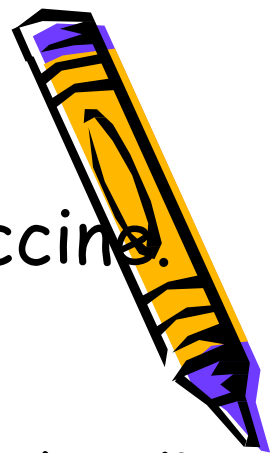
## Modes of Transmission:

- Solely among humans, spread by droplets
- Secretions, direct contact, Poor nutrition
- Low vaccine coverage among infants & children.





# Prevention



- Sanitary: Reduce carrier rate by use of vaccine.
- Immunological: A vaccine (DPT) prepared from an alkaline formaldehyde inactivated toxin (i.e. toxoid) is required. Passive immunization with antitoxin can be used for patients.
- Chemotherapeutic: Penicillin, erythromycin or gentamicin are drugs of choice.



# Filariasis

Infection caused by 3 closely related Nematodes-

- "*Wuchereria bancrofti*"
- "*Brugia malayi*"
- "*Brugia timori*"

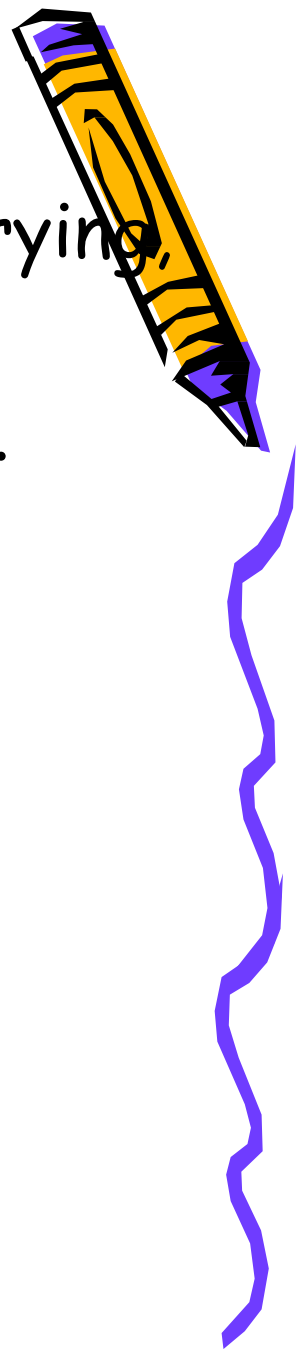
Symptoms: Filarial fever, Lymphangitis, Lymphadenitis, Elephantiasis of genitals/legs/arm, Filarial arthritis, Chyluria.

Mode of transmission: Transmitted by the bite of infected mosquito responsible for considerable sufferings.



# Prevention

- Treating the infection by Cooling the leg, drying, exercise.
- Treatment and prevention of Lymphoedema.
- Drugs effective against filarial parasites-
  1. Diethyl Carbamazine citrate (DEC)
  2. Ivermectin
  3. Albendazole
  4. Coumarins compound



# AIDS

- Acquired Immunodeficiency Syndrome"
- HIV (Human immunodeficiency virus) is the virus that causes AIDS
- Disease limits the body's ability to fight infection due to markedly reduced helper T cells.
- Patients have a very weak immune system (defense mechanism)

Symptoms: Fever, Headache, neuropathy, Sores, Rashes, Nausea, Vomitting.

Mode of Transmission: Sharing Needles, Unsterilized blades, Unprotected Intercourse, Mother to Baby.



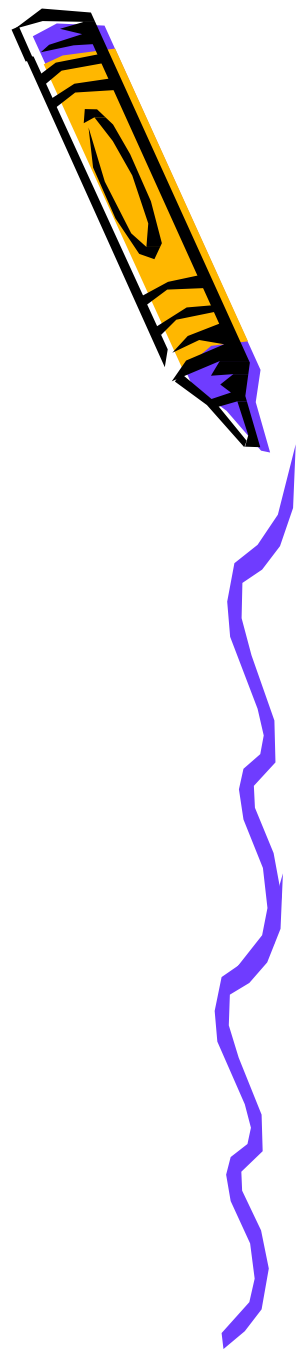
# Prevention

Some ways to protect urself-

- ♣ Monogamous Relationship.
- ♣ Protected Sex.
- ♣ Sterile needles.
- ♣ New shaving/cutting blades.

Anti-retroviral drugs are used-

- ♣ AZT (Zidovudine).
- ♣ Viramune (Nevirapine).
- ♣ Norvir (Ritonavir).



# Poliomyelitis

Poliomyelitis is a highly infectious disease caused by three serotypes of poliovirus.

Symptoms: febrile illness, aseptic meningitis, paralytic disease, and death.

## Modes of Transmission:

- Oral-oral infection:
  - direct droplet infection
- Faeco-oral infection:
  - Food-borne (ingestion)
  - Hand to mouth infection.



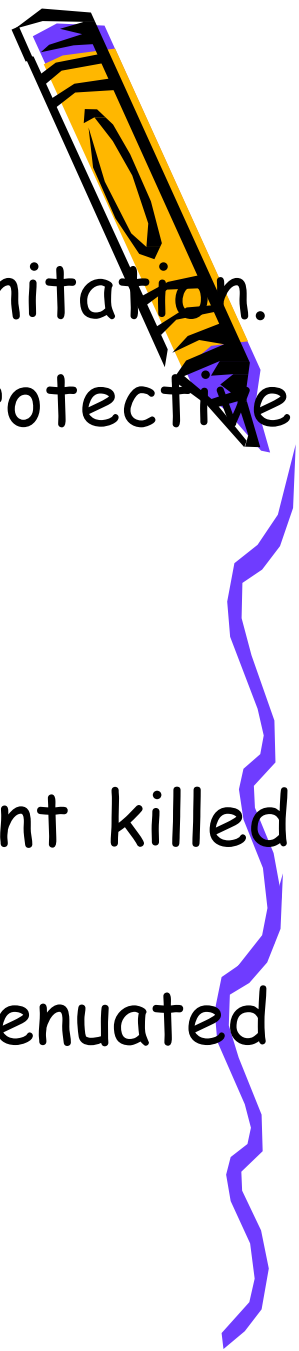
# Prevention

## General prevention:

- Health promotion through environmental sanitation.
- Health education (modes of spread, protective value of vaccination).

## Active immunization:

- Salk vaccine (intramuscular polio trivalent killed vaccine).
- Sabin vaccine (oral polio trivalent live attenuated vaccine).



# Malaria

It is caused by four *Plasmodium* species-

- *P. falciparum*
- *P. vivax*
- *P. malariae*
- *P. ovale*

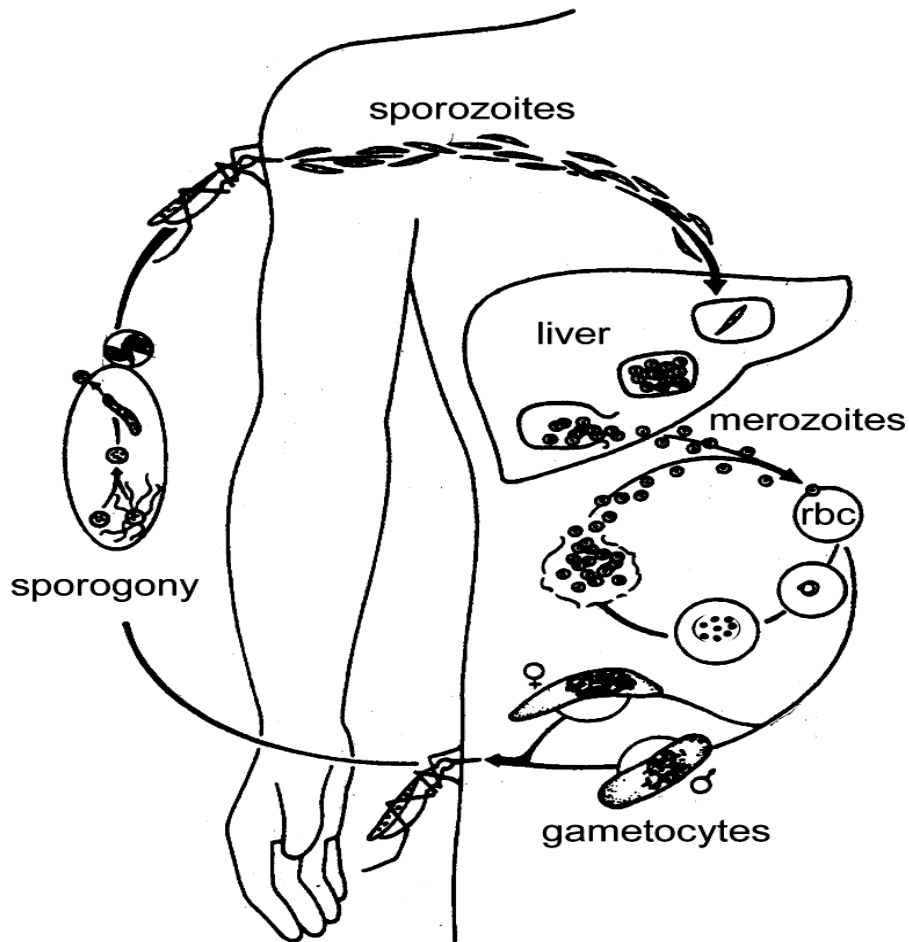
Symptoms: Chills, Fever, Internal fever, Body ache.

Mode of transmission: It is transmitted by female anopheles mosquito, sporozoites injected with saliva & enter circulation then infected person.





# Life cycle of malaria parasite

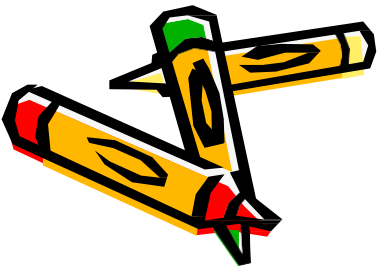


- ♣ sporozoites injected during mosquito feeding.
- ♣ invade liver cells.
- ♣ exoerythrocytic schizogony.
- ♣ merozoites invade RBCs.
- ♣ gametocytes infective for mosquito.
- ♣ fusion of gametes in gut.
- ♣ sporozoites invade salivary glands.



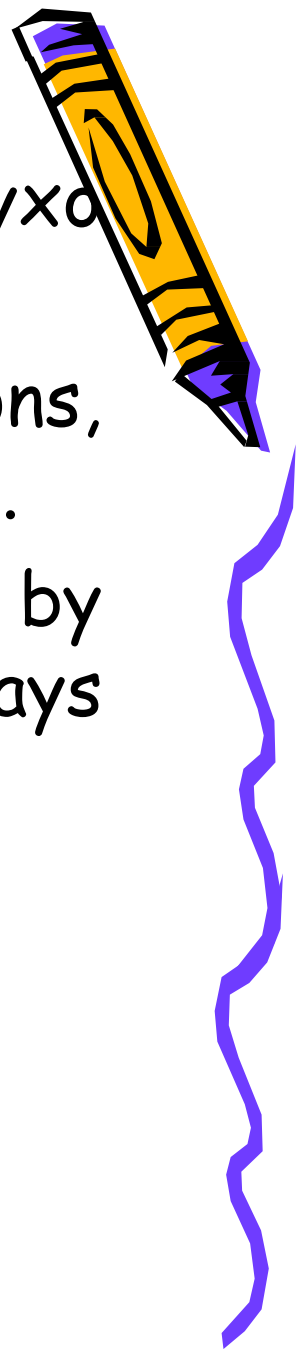
# Prevention

- Use a spray containing permethrin on clothing.
- Apply insect repellents regularly in cream, spray or gel form that contain diethyltoluamide (DEET).
- Use coils and mats impregnated with insecticide in closed rooms to repel the mosquitoes.
- Malaria prophylaxis are taken.
- Anti-malarial drugs are used such as chloroquine.

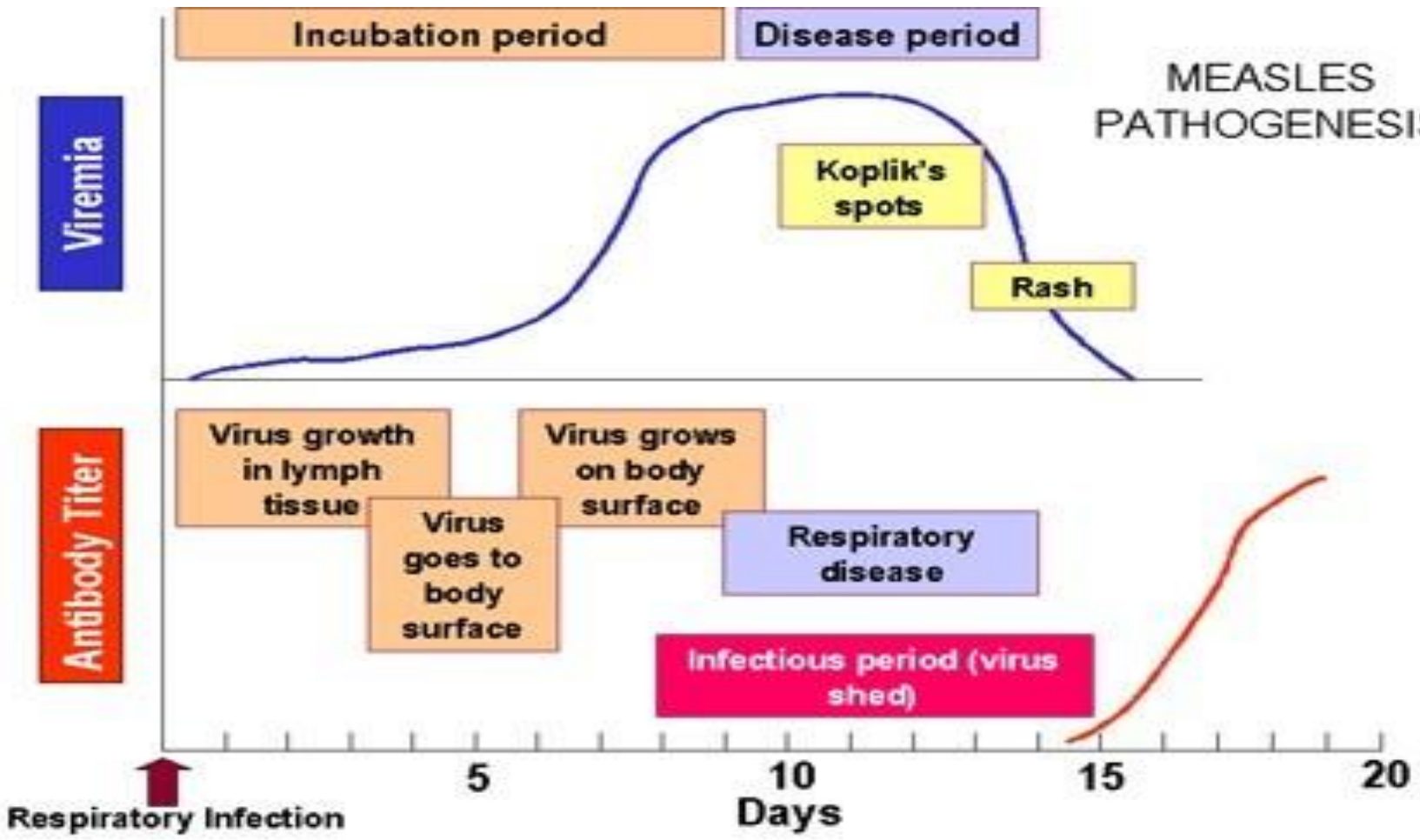


# Measeles

- It is caused by agent- RNA virus (Paramyxovirus family, genus Morbillivirus )
- Symptoms: Diarrhea, Pneumonia, Convulsions, SSPE (sub acute sclerosing panencephalitis).
- Modes of transmission: Transmitted by Droplet infection 4 days before and 4 days after rash.



# Measeles



# Prevention

- Live attenuated measles virus (Edmonston-zagreb strain)  
Propagated on human diploid cell. (0.5 ml of vaccine)
- Measles vaccine has to be given at 9 months.
- If Measles vaccine is given a 3 months gap is advisable to give MMR vaccine.
- The vaccine should be reconstituted with the diluent supplied (Sterile water for injection) using a sterile Auto disabled syringe with needle.
- After reconstitution the vaccine should be used immediately.
- If the vaccine is not used immediately then it should be stored in the dark at  $2^{\circ} - 8^{\circ}\text{C}$  for no longer than 8 hours.



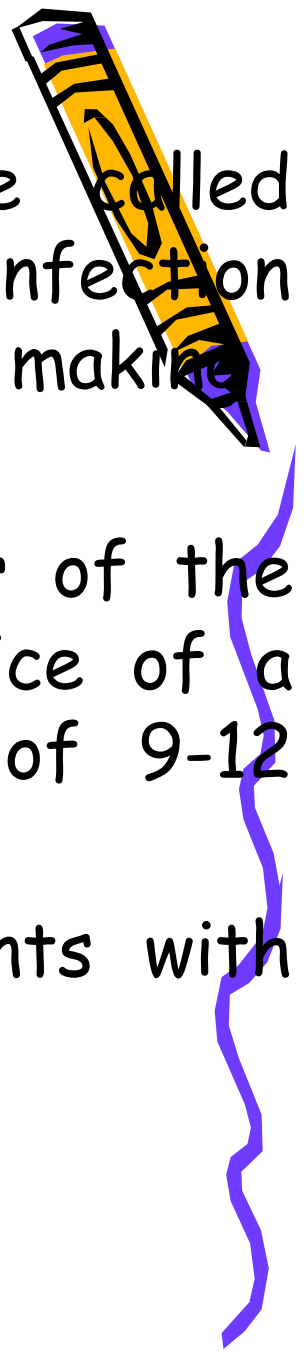
# Tuberculosis

- "Tuberculosis is defined as an infectious disease caused by a bacterium *Mycobacterium T.B.* ; that most commonly affects the lungs."
- Symptoms: Slight fever, night sweats, weight loss fatigue.
- Modes of transmission: tuberculosis is an airborne disease able to be passed from one person to another.



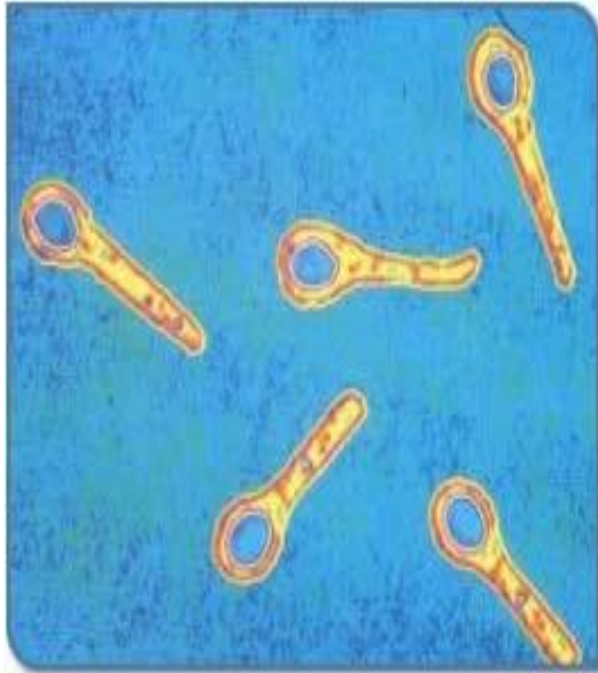
# Prevention

- Your doctor may prescribe a medicine called *isoniazid* to prevent the tuberculosis infection from developing into the active disease and making you feel sick.
- If you contract TB of the abdominal or of the extra-pulmonary you may have the choice of a mainstay therapy that takes a course of 9-12 months in order to complete.
- Surgery is generally reserved for patients with obstruction of vital organs.



# Tetanus

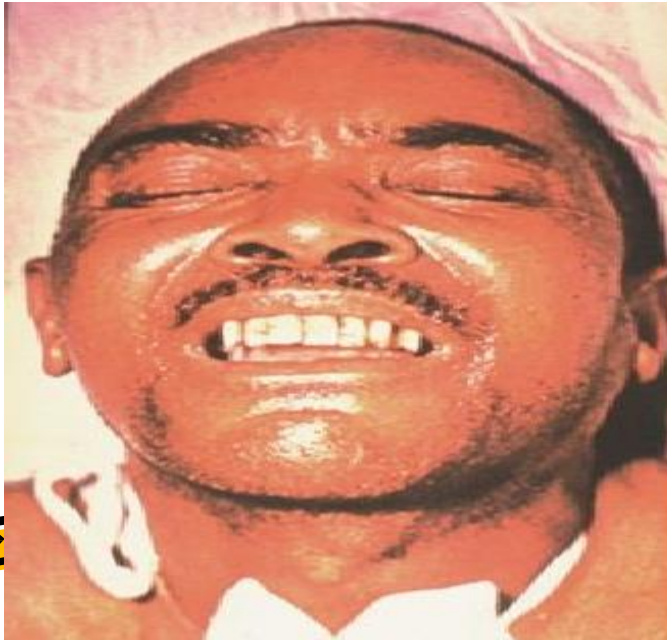
- A Neurological disease characterised by increased muscle tone & spasms Caused by CLOSTRIDIUM TETANI.
- It is found worldwide in soil, in inanimate environment, in animal faeces & occasionally human faeces.





# Cont.

- Symptoms: muscle rigidity, dysphagia, rigidity, spasm, trismus, hyperpyrexia.
- Mode of transmission: Infection is acquired by contamination of wounds with tetanus spores.





# Rabies

- Rabies is a viral disease that causes acute encephalitis in warm blooded animals, it can be transmitted to humans from other species.
- The rabies virus infects the CNS, cause disease in brain & death.
- Symptoms:

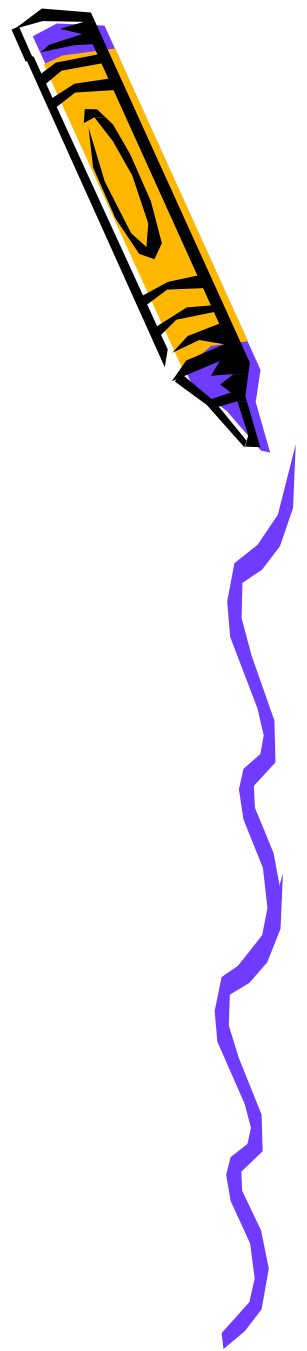
Partial paralysis, anxiety, insomnia, confusion, agitation, abnormal behavior, terror, and hallucinations, progressing to delirium.



# Contd.

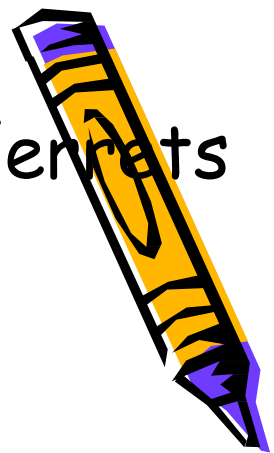
- Modes of transmission:

Rabies may also spread through exposure to infected domestic animals, groundhogs, bears, raccoons and other wild carnivorans. Small rodents such as squirrels hamsters, guinea pigs, gerbils, chipmunks rats and mice.



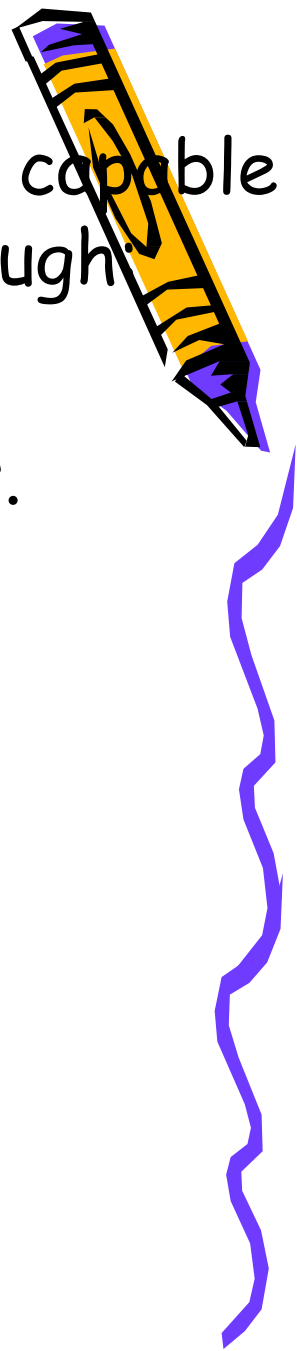
# Prevention

- Vaccinating dogs, cats, rabbits, and ferrets against rabies.
- Keeping pets under supervision.
- Not handling wild animals or strays.
- Contacting an animal control officer upon observing a wild animal or a stray, especially if the animal is acting strangely.
- If bitten by an animal, washing the wound with soap and water for 10 to 15 minutes and contacting a healthcare provider to determine if post-exposure prophylaxis is required.



# Sexually transmitted disease

- STDs are diseases and infections which are capable of being spread from person to person through:
  - sexual intercourse
  - oral-genital contact or in non-sexual ways.
  - IV drug
- Some STD's are:
  - Chlamydia.
  - Gonorrhoea.
  - Syphilis.
  - Candidiasis - Yeast Fungus.



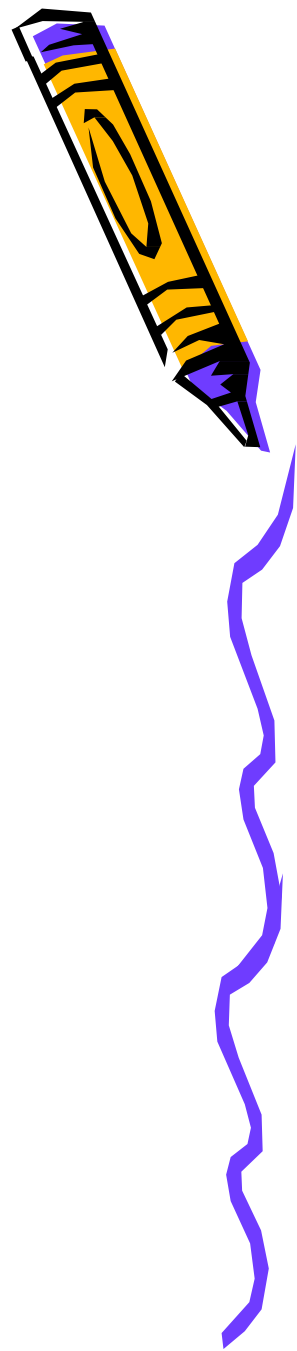
# Contd.

- Symptoms:

1. Sores.
2. Blood in urine.
3. Burning sensation when urinating.
4. Rashes.
5. Itching.
6. Warts.
7. Unusual discharge.

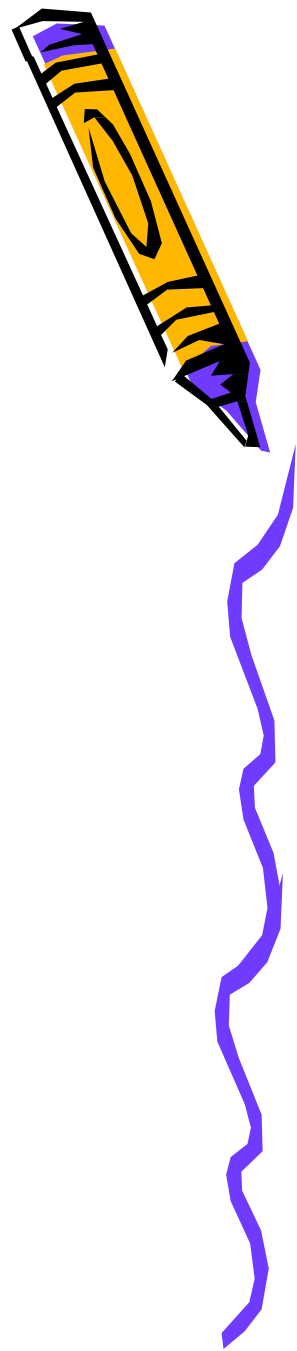
- Modes of transmission:

- } sexual intercourse
- } oral-genital contact or in non-sexual ways.
- } IV drug



# Prevention

- Abstinence.
- Know your partner
- Limit your partners.
- Visit your doctor.
- Always look.
- Keep clean.







End of Presentation

Thank you

