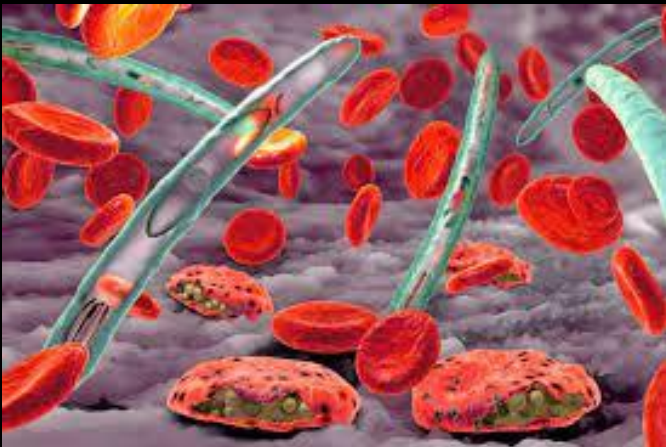


Definition

Malaria is the infection protozoal transmitted disease caused by plasmodium vivax microorganism to carry the female Anopheles mosquito of their bite to normal or healthy person .

Causative agent – plasmodium vivax



Malaria parasite type

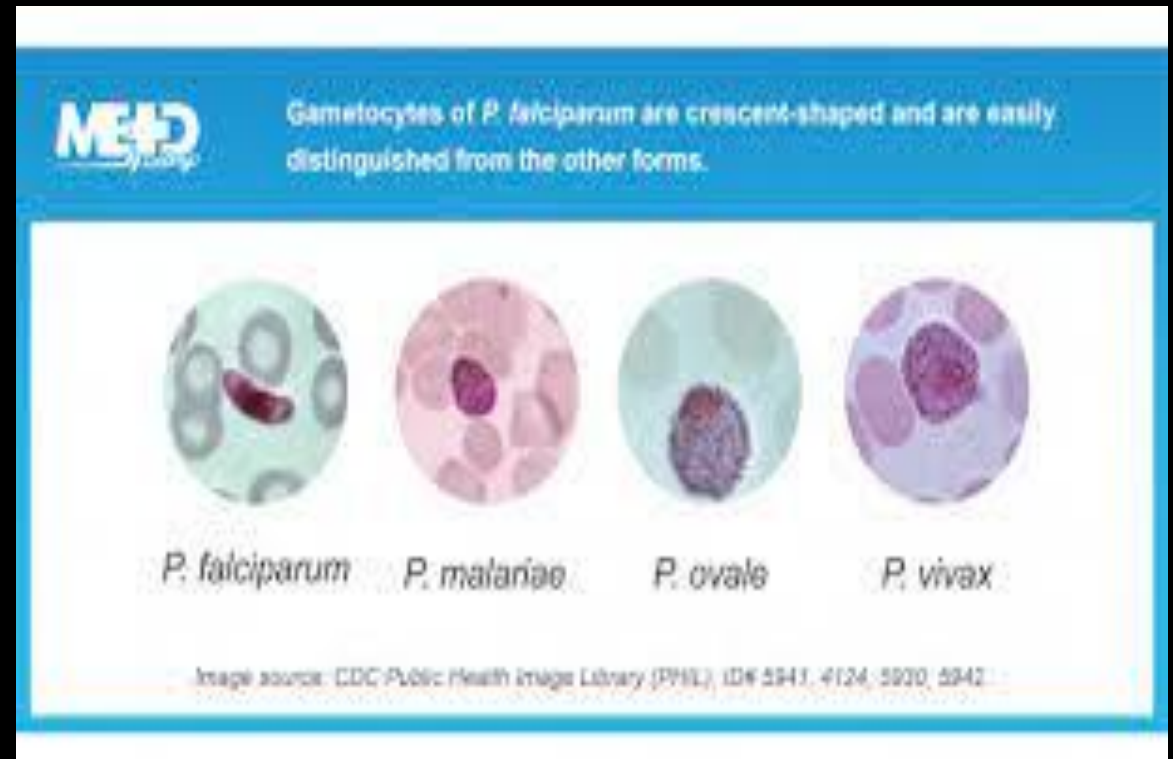
There are 4 species of malaria parasite --

1. *Plasmodium falciparum* .

2. *Plasmodium vivax* .

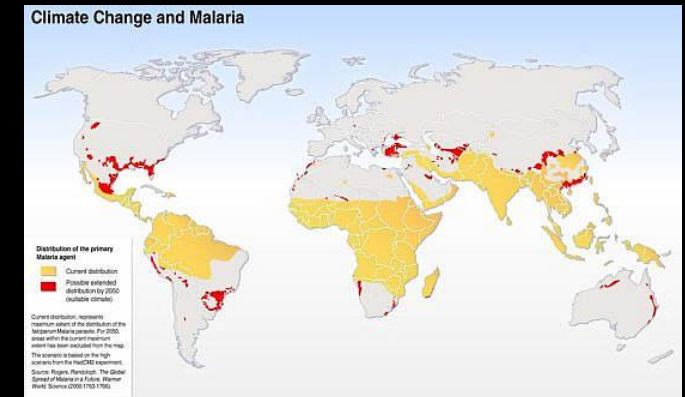
3. *Plasmodium ovale* .

4. *Plasmodium malariae* .



Epidemiology

- ❑ 3 to 700 million people get malaria each year but only kills 1 to 2 millions .
- ❑ 40 %of the worlds population lives in malaria zones .
- ❑ Malaria zone – Africa , India , middle east , southeast Asia , central and south America , Europe .



Sings and symptoms

- fever
- Headache
- Back pain
- Skin – chills
- Muscular fatigue
- Joint pain

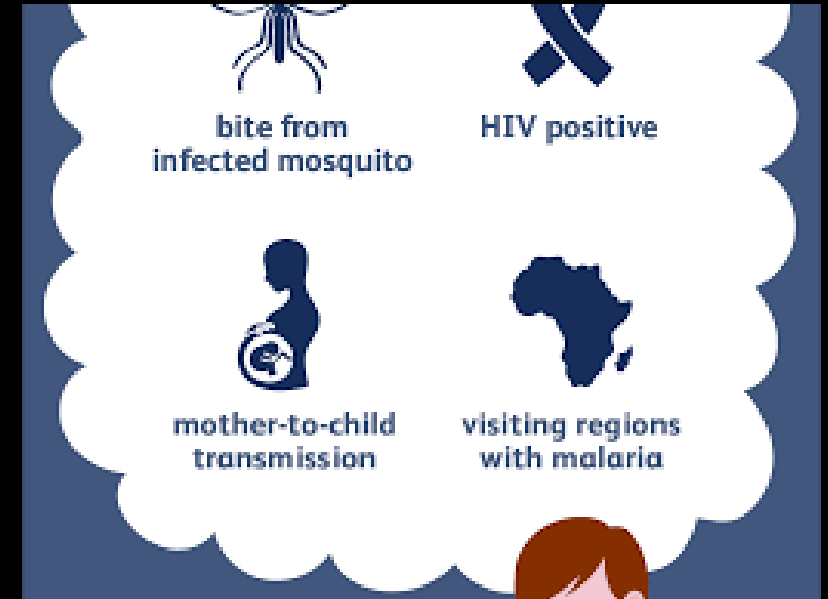


- Vomiting
- Anaemia
- Nausea
- Jaundice
- Renal damage
- Dry cough



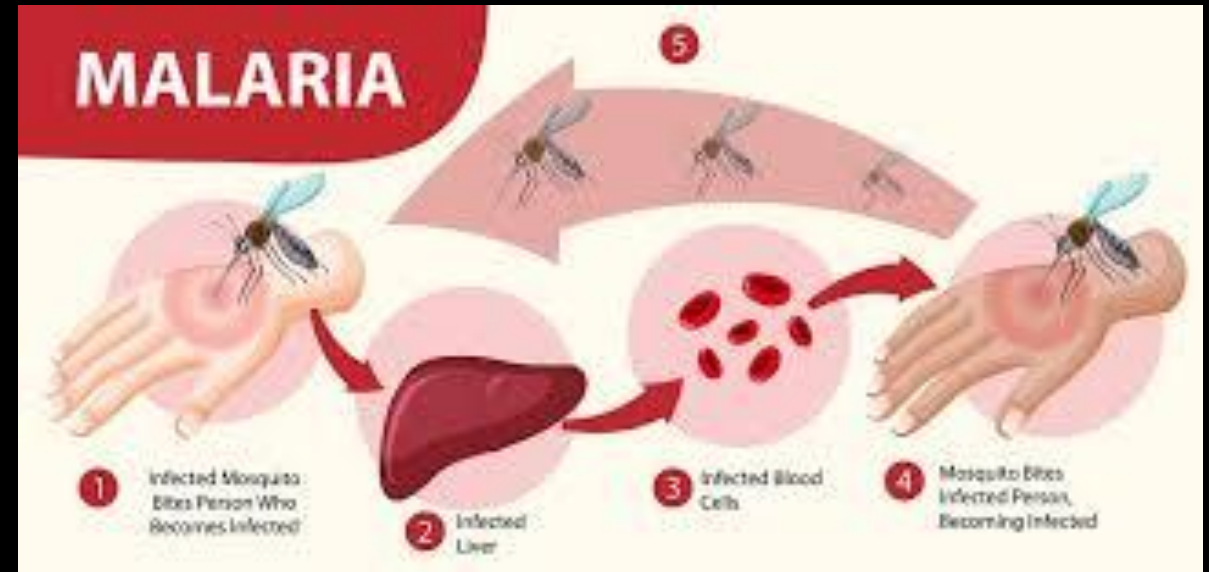
Risk factor

- ✓ Travel to area where malaria is common .
- ✓ Without taking medicine to prevent malaria .
- ✓ Pregnant women.
- ✓ Children under 5 years of age .
- ✓ Patient with HIV / AIDS .



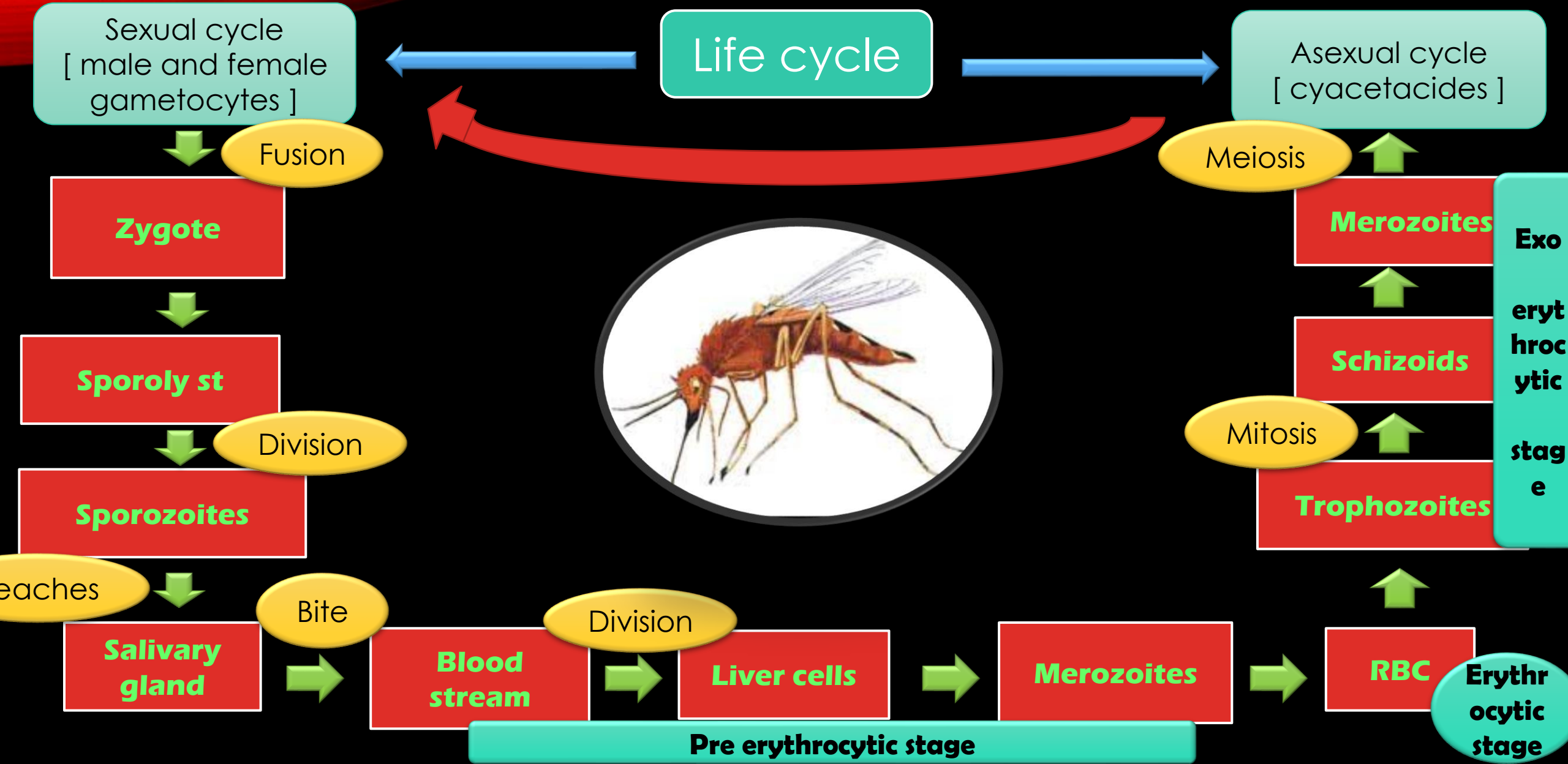
Mode of transmission

- Mosquito bite .
- Mother to unborn child .
- Blood transfusion .
- By sharing needles .



Incubation period – 7 to 14 days

Pathogenesis



Management

- **diagnosis**
- **Treatment**

Diagnosis

PCR test -- polymerase chain reaction assay sensitive and specific method to detect malaria parasite .

Antigen detection test -- malaria rapid diagnostic test assist in the diagnosis of malaria by detecting evidence of malaria parasite in human blood , this test require peripheral blood .

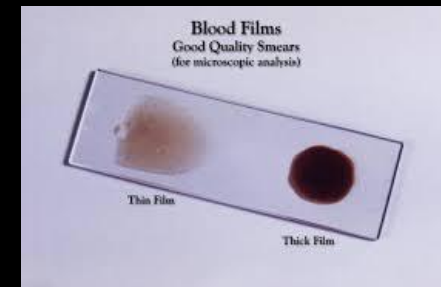
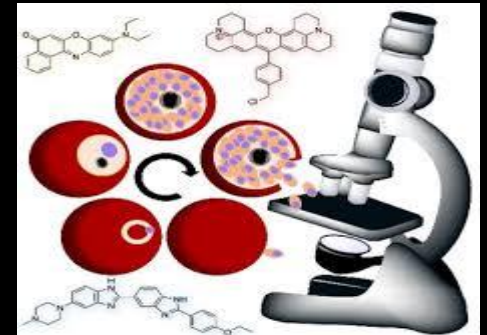


Fluorescent microscopy – it is the standard light microscopy and new interference filter specially designed for the fluorochrome stain , acridine orange , was used to detect malaria parasite .

Malaria blood smear – to determine whether have malaria , one test is negative and no parasite are found .

Investigation

- **physical examination .**
- **Malaria parasite test .**
- **The peripheral test .**
- **Bone marrow smear .**
- **History collection .**
- **CBC , TC , DC .**



Treatment

Category	drug name
Aminoquinolines	Chloroquine , Amodiaquine
Biguanides	Proguanil
Antibiotic	Doxycycline , tetracycline
Hydroxynaphthoquinone	Atovaquone
Benzo naphthyridine derivative	Pyronaridine
Antimalarial	Artesunate , artemether
Methanol	Mefloquine
diamino pyrimidines	Pyrimethamine

Complication

- ❖ Cerebral malaria .
- ❖ Sever haemolytic anaemia .
- ❖ Haemoglobinuria .
- ❖ hypoglycaemia.
- ❖ Diarrhea , jaundice .
- ❖ Shock hypotension .



Prevention

- ▣ use mosquito repellent
- ▣ wear protective clothes
- ▣ use bed net in sleeping time .
- ▣ put screens on windows and door .
- ▣ avoided mosquito bite .
- ▣ spray an insecticide or repellent .
- ▣ always wash hand and cloths .
- ▣ not use syringe for one person to another person.



**Thank
you**