

## MALARIA :

### Definition:

According to World Health Organization:

"Malaria is a life-threatening disease caused by Plasmodium parasites. The parasite pass to people through the bites of female Anopheles mosquitoes."

There are 5 parasite species that can cause malaria, and 2 of them are:

i) P. falciparum

ii) P. vivax

#### i) *P. falciparum*:

The most prevalent malaria parasite on the African continent. It is responsible for most of the deaths globally.

#### ii) *P. vivax*:

The dominant malaria parasite in most countries out of the sub-Saharan Africa.

### WHO 2024 report:

\* According to World Health Organization 2024 report, in 2023 there were about 263 million malaria cases reported globally and 597000 deaths.

\* 94-95% those cases and deaths

reported in the African Region.

\* The 2025 campaign "Malaria Ends with Us: Reinvest, Reimagine, Reignite". It means progress needs ~~new~~ efforts globally.

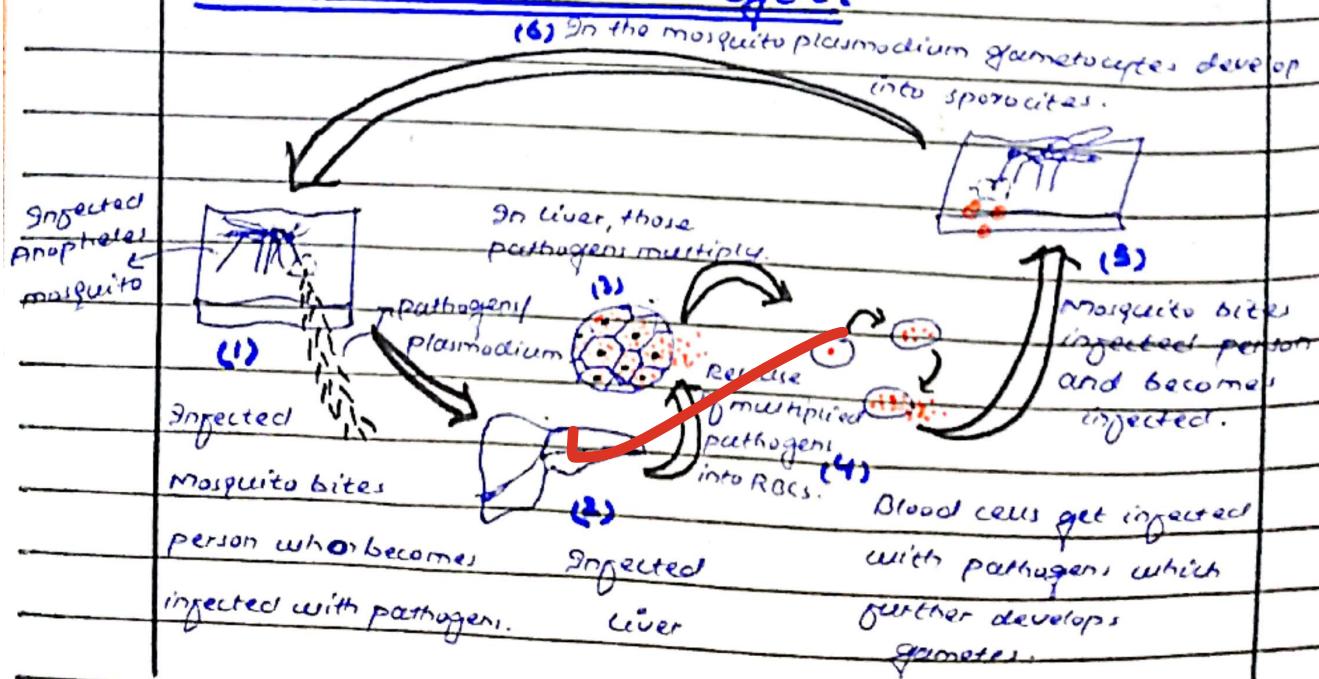
## Causes:

- \* The parasite infects humans when an infected female Anopheles mosquito bites a person and injects parasites into the bloodstream.
- \* The parasites travel to the liver, multiply, then re-enter the blood stream and infect red blood cells; this cycle causes illness.

## Risk factors:

- i- Being in tropical/sub-tropical region.
- ii- Poor mosquito control
- iii- Weak immune systems
- iv- Poor access to prevention and treatment.

## Malaria Transmission Cycle:



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## Symptoms:

\* It is an acute feverish illness and its symptoms often appear in 10-15 days after bite of mosquito.

## Common Symptoms:

- i- Fever
- ii- Sweating
- iii- Vomiting
- iv- Cough
- v- Chills
- vi- Headache
- vii- Fatigue
- viii- Abdominal pain

↳ If these are not treated in 24 hours, lead to severe illness.

## Severe Symptoms:

- i- Cerebral Malaria
- ii- Severe Anemia
- iii- Organ Failure
- iv- Coma and Death.

## Preventions:

### i) Vector Control:

- 1- Use insecticide-treated bed nets when sleeping in malaria-risk regions.
- 2- Indoor residual spraying of insecticides on walls and surfaces where mosquitoes rest.
- 3- Use repellents (DEET, lotions) on exposed skin, especially in evening.
- 4- Wear protective clothing.

## ii) Protective chemotherapy/prophylaxis:

- Taking anti-malarial medication to prevent infection.
- For travellers to malaria endemic areas, prophylactic antimalarials may be advised.
- WHO recommends protective measurements for pregnant women in malaria endemic areas.

## iii) Vaccination:

- WHO now recommends vaccines for children in endemic areas.

## iv) Environmental and community measures:

- i- Remove the standing water
- ii- community education
- iii- strong health systems for rapid diagnosis.

## Treatment:

- (i) Early diagnosis and treatment reduces disease and prevent deaths. It also contribute to reducing malaria transmission.
- (ii) For *P. falciparum* malaria, artemisinin-based combination therapy (ACT) is used as treatment.
- (iii) Drugs and dosing may vary by species, by region, by age, and pregnancy status.
- (iv) Ensure full course of treatment is completed.
- (v) Anti-malarial medication is used both to treat and prevent malaria.
- (vi) There are no licensed vaccines against malaria.

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but the answer is lengthy and might affect your time management,



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