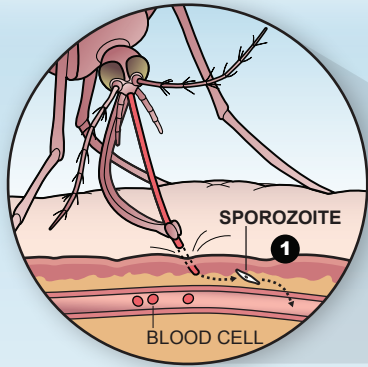


The Life Cycle of Malaria



1 To start the cycle, an infected female *Anopheles* mosquito injects sporozoites into the skin while feeding.

An infected mosquito starts the cycle



SPOROZOITES

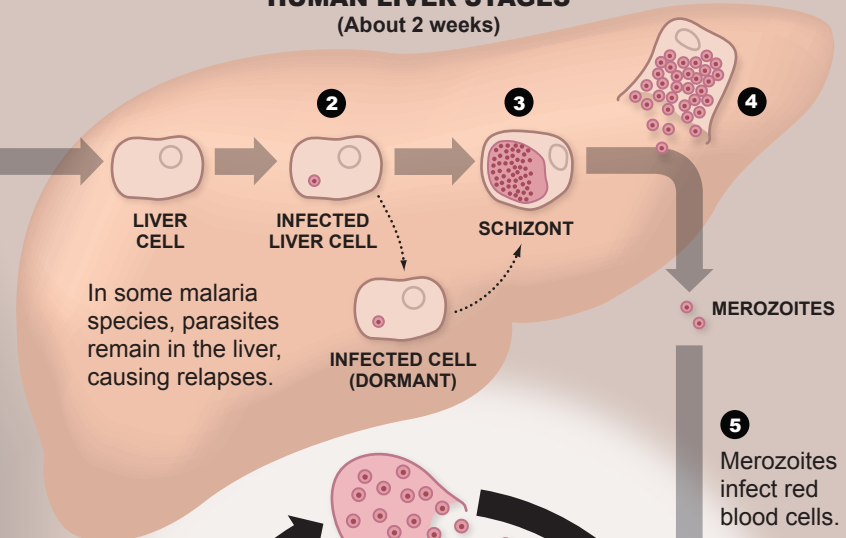


2 Sporozoites enter the blood stream and are carried to the liver, where they infect liver cells.

3 Within liver cells, the parasites develop into schizonts.

4 The schizonts rupture, releasing thousands of individual merozoites into the bloodstream.

HUMAN LIVER STAGES (About 2 weeks)



In some malaria species, parasites remain in the liver, causing relapses.

2

3

4



LIVER CELL



INFECTED LIVER CELL



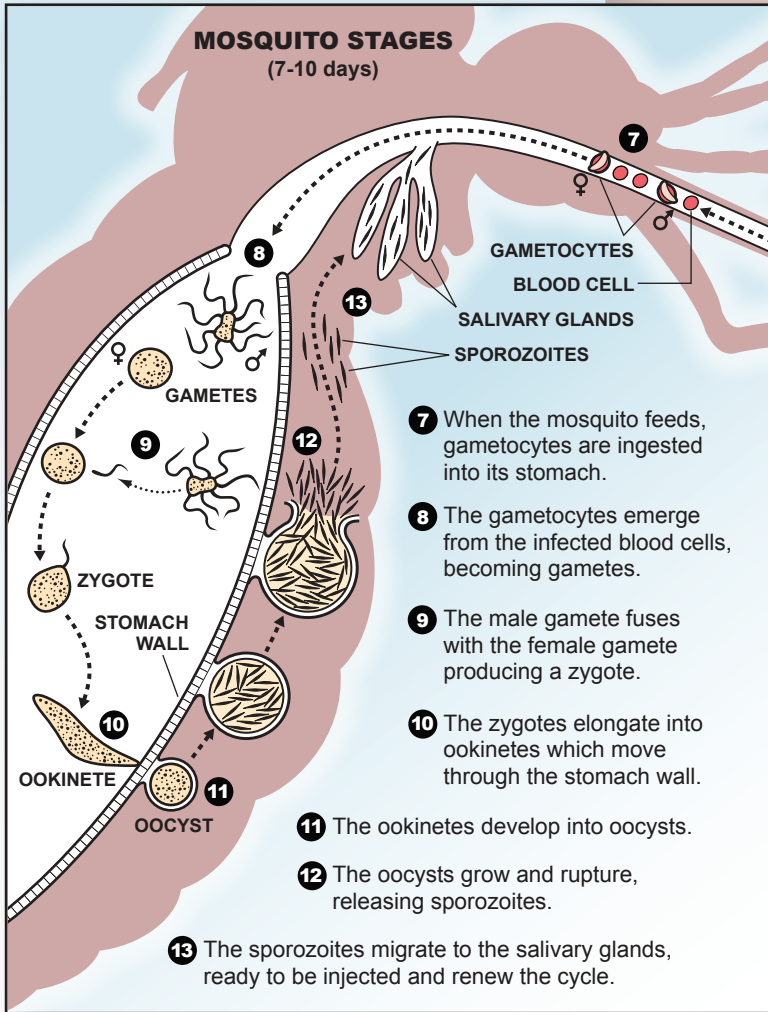
SCHIZONT



MEROZOITES

5

Merozoites infect red blood cells.



MOSQUITO STAGES (7-10 days)

7 When the mosquito feeds, gametocytes are ingested into its stomach.

8 The gametocytes emerge from the infected blood cells, becoming gametes.

9 The male gamete fuses with the female gamete producing a zygote.

10 The zygotes elongate into ookinetes which move through the stomach wall.

11 The ookinetes develop into oocysts.

12 The oocysts grow and rupture, releasing sporozoites.

13 The sporozoites migrate to the salivary glands, ready to be injected and renew the cycle.

GAMETOCYTES
BLOOD CELL
SALIVARY GLANDS
SPOROZOITES

7

8

9

10

11

12

13

ZYGOTE
STOMACH WALL
OOKINETE
OOCYST

Another mosquito becomes infected, continuing the cycle



HUMAN BLOOD STAGES (2-3 day cycles)

Repeated cycles cause illness and potential death if not treated.

SCHIZONT

RUPTURED SCHIZONT

5 INFECTED RED BLOOD CELL

TROPHOZOITE

RING STAGE

GAMETOCYTES

6 Some parasites change into male and female forms called gametocytes.