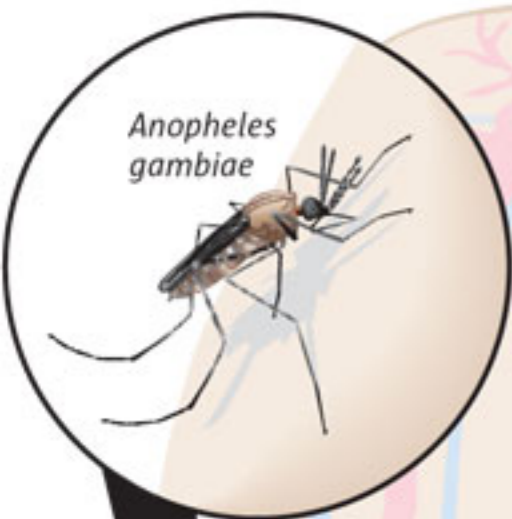


Malaria's mind-boggling life cycle

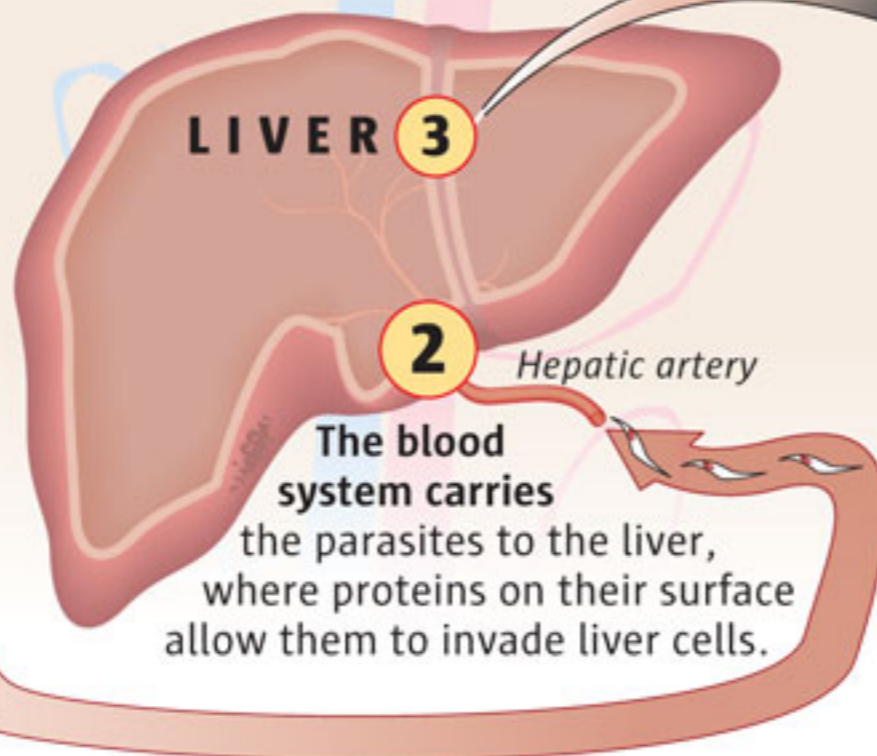
The malaria parasite has more than 10 distinct stages, which can foil human or mosquito immune systems.

From mosquito to human...



1 An infected mosquito bites a human, injecting wormlike versions of the parasite called *sporozoites*.

Sporozoite



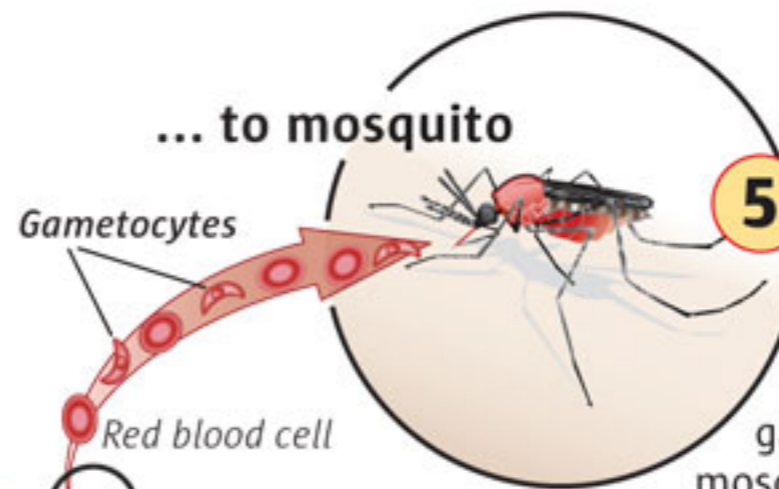
LIVER

3

2

Hepatic artery

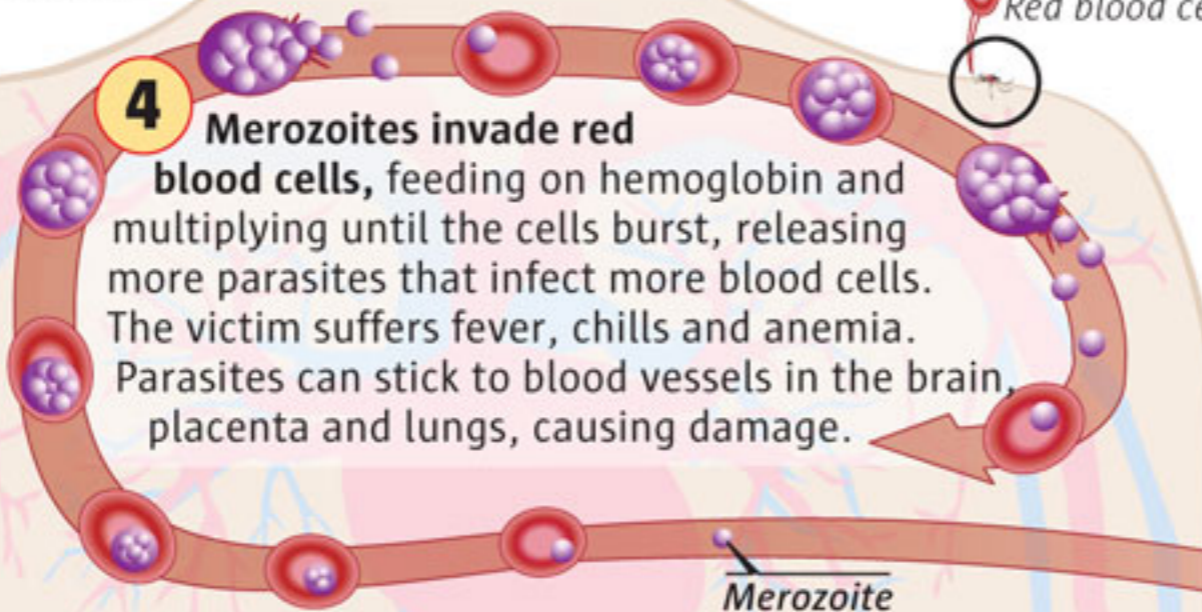
The blood system carries the parasites to the liver, where proteins on their surface allow them to invade liver cells.



... to mosquito

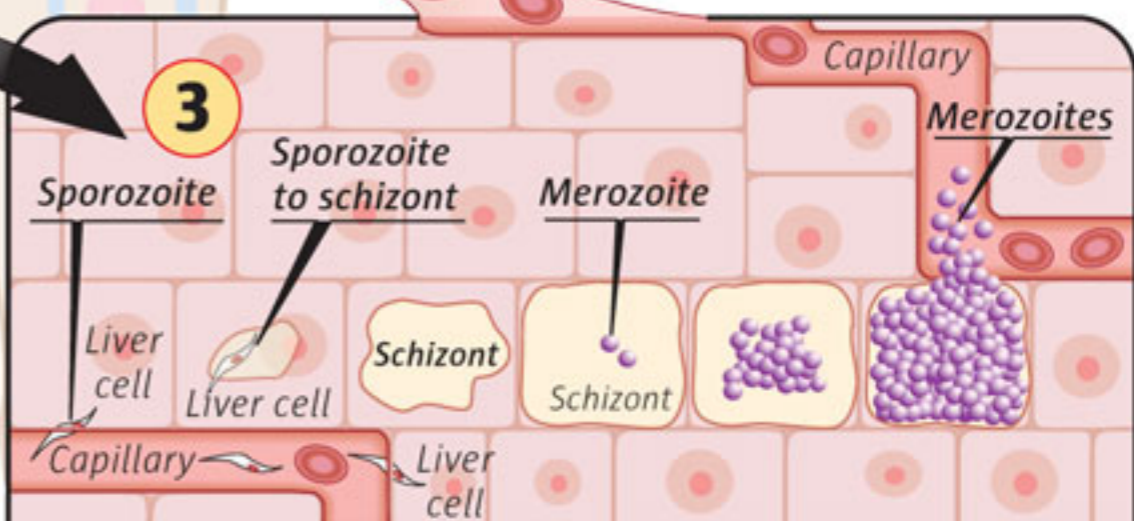
5

Some merozoites develop into sexually reproductive gametocytes. The gametocytes pass into mosquitoes that bite infected people. Inside the mosquitoes, the gametocytes combine, forming an *ooocyte* that releases sporozoites. The parasites travel to the mosquito salivary gland, poised to continue the cycle with the insect's next bite.



4

Merozoites invade red blood cells, feeding on hemoglobin and multiplying until the cells burst, releasing more parasites that infect more blood cells. The victim suffers fever, chills and anemia. Parasites can stick to blood vessels in the brain, placenta and lungs, causing damage.



3

Sporozoite

Sporozoite to schizont

Merozoite

Liver cell

Liver cell

Schizont

Schizont

Capillary

Liver cell

Inside liver cells, sporozoites transform into a phase called *schizonts*, which grow and divide, forming tens of thousands of another form called *merozoites*. The merozoites burst out of liver cells and pass into the bloodstream.