Plasmodium is a genus of organisms in the kingdom Protista. Four species of Plasmodium cause a disease called malaria in humans. Plasmodium uses both humans and female Anopheles mosquitoes to complete its life cycle. Mosquitoes carry Plasmodium and transmit it from one human to another. The diagram below represents a simplified life cycle of Plasmodium.

**Life Cycle of Plasmodium**

*Plasmodium* is transmitted to a mosquito when the mosquito bites an infected human.

**Human Red Blood Cell Stage**
*Plasmodium* enters the red blood cells and asexually reproduces. The red blood cells burst, releasing more *Plasmodium*.

**Human Liver Stage**
*Plasmodium* enters the human liver and asexually reproduces within liver cells.

**Mosquito Stage**
*Plasmodium* sexually reproduces in the mosquito digestive system. Offspring travel to the mosquito’s salivary glands.

The new *Plasmodium* cells are released from the liver to the bloodstream.

*Plasmodium* is transmitted to human blood when an infected mosquito bites a human.

Humans experience malaria symptoms during the red blood cell stage. These include fatigue, high fever, and other flu-like symptoms. Malaria can be fatal if it is not treated. Some efforts to prevent malaria focus on eliminating mosquito populations, but a rise in the number of pesticide-resistant mosquitoes is making these efforts less effective.