

**What is Malaria?**

Malaria is a mosquito-borne disease caused by a blood parasite called *Plasmodium*. Patients with malaria typically are very sick with high fevers, shaking chills, and flu-like illness. Although malaria can be a fatal disease, illness and death from malaria are largely preventable.

The World Health Organization estimates that each year 300-500 million cases of malaria occur and more than 1 million people die as a result. Malaria is most prevalent in warmer regions of the world – typically tropical and subtropical areas, including over 100 countries in Central and South America, Hispaniola, Africa, the Indian subcontinent, Southeast Asia, the Middle East, and Oceania.

About 1,500 cases of malaria are diagnosed in the United States every year, most occurring in travelers and immigrants returning from malaria-risk areas of the world. Almost all of the 25 to 30 cases reported annually in Ohio are acquired in foreign countries; however, a locally acquired case occurred here in 1975.

**How is malaria spread?**

Malaria is spread by the bite of an infected *Anopheles* mosquito. *Anopheles* mosquitoes prefer to feed at night. With certain malaria species, dormant forms can be produced which may cause relapses of malaria months to years later. Malaria may also be transmitted by transfusion of blood from infected people or by the use of contaminated needles or syringes.

**How soon do symptoms occur?**

The time between the infective mosquito bite and the development of malaria symptoms can range from 12-30 days depending on the type of *Plasmodium* involved.

**What are the symptoms of malaria?**

Symptoms often include fever, chills, sweats, muscle aches, tiredness, and headache. In some instances they may progress to blood coagulation defects, shock, kidney or liver failure, central nervous system disorders, coma and death. Cycles of chills, fever and sweating occurring every one, two or three days are a good indicator of malaria in a person recently returning from a tropical area.

**How is malaria diagnosed?**

Malaria is diagnosed based on symptoms, followed by laboratory confirmation. The test that is used most widely is microscopic examination of the patient's blood for the presence of the malaria parasite.

**Can infected persons spread malaria?**

Direct person-to-person transmission does not occur. Untreated or inadequately treated cases may be a source of mosquito infection for one to three years depending on the strain of *Plasmodium*. Stored blood products can remain infective for 16 days.

**What is the treatment for malaria?**

Malaria can be cured with prescription drugs. The type of drugs and length of treatment depend on which kind of malaria is diagnosed, where the patient was infected, the age of the patient, whether the patient is pregnant, and how severely ill the patient is at the start of treatment.

**Once infected with malaria are you infected for life?**

Malaria can be treated. However, the disease can persist if it is left untreated or if treatment

was ineffective either due to drug resistance or a shortened course of treatment.

### **What can be done to prevent the spread of malaria?**

Since malaria is not native to the United States, exposure of Americans occurs most frequently during travel. Preventive medications are available for those traveling to a known malarial area.

Travelers who become ill with a fever during or after travel in a malaria risk area should seek prompt medical attention and should inform their physician of their recent travel history.

Although malaria is not endemic to Ohio, there are *Anopheles* mosquitoes here which are efficient transmitters of *Plasmodium*. Thus, an infected person, if bitten by an *Anopheles* mosquito, could allow the parasite to be transmitted in Ohio.

### **How can I prevent mosquito bites when traveling?**

Avoid mosquito bites.

- Avoid wet, swampy areas where mosquitoes live and breed.
- Avoid activities during the peak mosquito biting periods.
- Use mosquito netting over infant carriers

Repel mosquitoes when outdoors.

- If the weather permits wear long pants, long sleeves, and/or socks.
- Apply mosquito repellent as directed to clothing and exposed skin.
- Reapply mosquito repellent as needed especially if swimming or sweating.

### **For more information please visit these websites.**

US Army Center for Health Promotion and Preventive Medicine Malaria fact sheet  
[http://usachppm.apgea.army.mil/Documents/FACT/18-040-0107\\_Malaria.pdf](http://usachppm.apgea.army.mil/Documents/FACT/18-040-0107_Malaria.pdf)

CDC Malaria Page <http://www.cdc.gov/malaria/index.htm>

CDC insect repellent use and safety

[http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect\\_repellent.htm](http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect_repellent.htm)