

MALARIA PREVENTION

WHAT IS MALARIA?

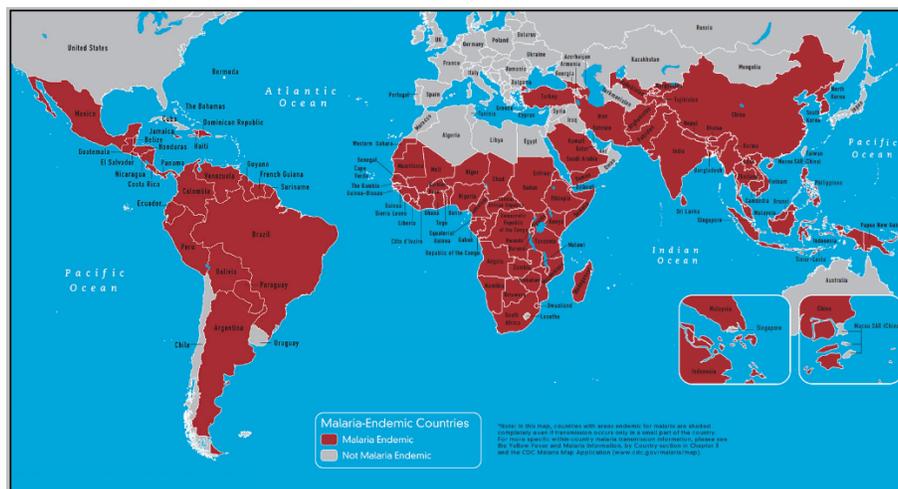
Malaria is a mosquito-borne infectious disease that affects humans and other animals. It is transmitted via the bite of a female *anopheles* mosquito at night. There are five types of malaria throughout the world.



WHERE IS MALARIA IN THE WORLD?

Malaria is one of the most significant parasitic diseases in the world. Each year, between 200 and 500 million people contract malaria with approximately 400,000 deaths. Approximately 1,500 travelers from the United States die from malaria each year.

Individuals at high risk for malaria transmission include young children, pregnant women and people visiting friends and relatives in their country of origin (VFR). The highest risk area of the world for contracting malaria is Sub-Saharan Africa.



WHAT ARE THE SYMPTOMS OF MALARIA?

- > Fever
- > Fatigue
- > Chills
- > Muscle aches and pains
- > Tiredness
- > Headache
- > Abdominal pain
- > Nausea
- > Diarrhea

Appointments: 206.685.1011



Symptoms usually begin one to two weeks after an infected bite, but onset can be as late as four or more weeks. If left untreated, malaria can cause anemia, jaundice, kidney failure, coma and death. **If you experience an unexplained fever during or after return from travel, we suggest seeking urgent medical care.**

Please remember that malaria can kill travelers.

MALARIA PROPHYLAXIS (PREVENTION)

Malaria is highly preventable by doing the following:

- > Avoiding mosquito bites with use insect repellents and mosquito nets
- > Taking malaria prophylaxis medication

Please review our handout on insect protection. Based on your travel itinerary and health history, malaria prophylaxis may be prescribed by a travel medicine provider.

Malaria prophylaxis is typically taken before, during and after travel. Please see the detailed table on the next page and read all drug information on malaria prophylaxis provided by your pharmacist.

There is no vaccine for prevention of malaria for international travelers.

Drug	Dosing	Side effects	Pregnancy & lactation	Notes
Malarone® (atovaquone/ proguanil)	1 tab daily, 1 day before travel, during travel and 7 days post travel <u>Adult dose</u> 250/100 mg daily <u>Kid dose</u> 62.5/25 mg peds tab (weight dependent)	<u>Common</u> Nausea, stomach upset, headache, itching <u>Occasional</u> Mouth ulcerations, vivid dreams <u>Rare</u> Allergic reaction, liver toxicity, anemia	Not recommended; insufficient data on use in pregnancy; category C	Avoid with renal insufficiency/failure Take with food or milky drink to improve absorption
Doxycycline (Vibra® or Doryx®)	<u>Adult dose</u> 100 mg daily <u>Kid dose</u> 2 mg/kg/day. Must be 8 or older	<u>Common</u> Nausea, vomiting, yeast infection, sun sensitivity <u>Rare</u> Esophagitis, esophageal erosions, skin hyperpigmentation	Not considered safe during pregnancy or breast feeding	Use broad-spectrum sunscreen. Take with food. Avoid antacids or Pepto Bismol®. Consider a backup method of birth control if taking oral contraceptives.
Chloroquine phosphate (Aralen®)	<u>Adult dose</u> 500 mg weekly <u>Kid dose</u> 8.3 mg/kg/week	<u>Common</u> Itching, nausea, headache <u>Occasional</u> Rash, vision changes, hair loss <u>Rare</u> Hearing loss, sun sensitivity, nail/mucous membrane discoloration, mood changes, seizures, prolonged heart arrhythmia	Chloroquine has not been found to increase the risk of adverse fetal events when used in recommended doses for malaria prophylaxis (CDC, 2020). No pregnancy category assigned.	For chloroquine-sensitive malaria Take at bedtime to minimize side effects
Hydroxychloroquine (Plaquenil®)	<u>Adult dose</u> 400 mg weekly <u>Kid dose (>31kg)</u> 6.5 mg/kg/dose	See above.	See above.	See above.
Mefloquine (Lariam®)	<u>Adult dose</u> 250 mg weekly <u>Kid dose</u> 5 mg/kg/week	<u>Common</u> Dizziness, vertigo, nausea, headache, diarrhea, strange dreams, insomnia <u>Rare</u> Seizures, mental disorders, hypotension, prolonged QT (heart arrhythmia)	Category B in pregnancy. No evidence of risk to fetus in studies.	Not routinely used due to potential for mental health risks. Do not take if history of depression, psychosis, seizures, heart arrhythmia Avoid use with alcohol