

A GUIDE LINE TO MALARIA

What is malaria?

Malaria is a serious, sometimes fatal, disease caused by a parasite. There are four kinds of malaria that can infect humans: *Plasmodium falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*.

Where does malaria occur?

Malaria occurs in over 100 countries and territories. More than 40% of the people in the world are at risk. Large areas of Central and South America, Africa, the Indian subcontinent, Southeast Asia, the Middle East, and Oceania are considered malaria-risk areas (an area of the world that has malaria).

How do you get malaria?

Humans get malaria from the bite of a malaria-infected mosquito. When a mosquito bites an infected person, it ingests microscopic malaria parasites found in the person's blood. The malaria parasite must grow in the mosquito for a week or more before infection can be passed to another person. If, after a week, the mosquito then bites another person, the parasites go from the mosquito's mouth into the person's blood. The parasites then travel to the person's liver, enter the liver's cells, grow and multiply. During this time when the parasites are in the liver, the person has not yet felt sick. The parasites leave the liver and enter red blood cells; this may take as little as 8 days or as many as several months. Once inside the red blood cells, the parasites grow and multiply. The red blood cells burst, freeing the parasites to attack other red blood cells. Toxins from the parasite are also released into the blood, making the person feel sick. If a mosquito bites this person while the parasites are in his or her blood, it will ingest the tiny parasites. After a week or more, the mosquito can infect another person.

What are the signs and symptoms of malaria?

Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness. Nausea, vomiting, and diarrhoea may also occur. Malaria may cause anaemia and jaundice (yellow colouring of the skin and eyes) because of the loss of red blood cells. Infection with one type of malaria, *Plasmodium falciparum*, if not promptly treated, may cause kidney failure, seizures, mental confusion, coma, and death.

How soon will a person feel sick after being bitten by an infected mosquito?

For most people, symptoms begin 10 days to 4 weeks after infection, although a person may feel ill as early as 8 days or up to 1 year later. Two kinds of malaria, *P. vivax* and *P. ovale*, can relapse; some parasites can rest in the liver for several months up to 4 years after a person is bitten by an infected mosquito. When these parasites come out of hibernation and begin invading red blood cells, the person will become sick.

How is malaria diagnosed?

Malaria is diagnosed by looking for the parasites in a drop of blood. Blood will be put onto a microscope slide and stained so that the parasites will be visible under a microscope.

Any traveller who becomes ill with a fever or flu-like illness while travelling and up to 1 year after returning home should immediately seek professional medical care. You should tell your health care provider that you have been travelling in a malaria-risk area.

Who is at risk of malaria?

Persons living in, and travellers to, any area of the world where malaria is transmitted may become infected.

Are there Self – Administered medications?

If you are in a remote location, more than 12 hours away from a doctor and you may or may not have been taking a preventive medication or have been taking chloroquine. Halfan can be taken as a curative measure. You should not, however, take Halfan as a curative medication if you have been taking mefloquine as a preventative.

In all cases, it is necessary to see a doctor as soon as possible. Self-treatment is only a temporary measure and prompt medical evaluation is imperative.

What is the treatment for malaria?

There is no effective vaccination for malaria. 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, and how severely ill the patient was at start of treatment.

How can malaria and other travel-related illnesses be prevented?

- Visit your health care provider 4-6 weeks before foreign travel for any necessary vaccinations and a prescription for an anti-malarial drug.
- Take your anti-malarial drug exactly on schedule without missing doses.
- Prevent mosquito and other insect bites. Use DEET insect repellent on exposed skin and flying insect spray in the room where you sleep.
- Wear long trousers and long-sleeved shirts, especially from dusk to dawn. This is the time when mosquitoes that spread malaria bite.
- Sleep under a mosquito bednet that has been dipped in permethrin insecticide if you are not living in screened or air-conditioned housing.
- Coils that smoulder also provide good protection. They can be used in a tent, veranda or well-ventilated room.

Local Medical Guidance

At all times you should seek local Medical Guidance whilst on location. The Client's Health and Safety Medic or Doctor will assist and provide you with the latest information for the location you are assigned to.

It is the responsibility of all personnel to independently establish the various mandatory requirements and recommendations with respect to inoculations and medications for every country to which they are assigned. OPS will assist in this process if requested but recommend that you contact an approved Offshore Medical Centre in order to obtain the most up-to-date information concerning inoculations and medication protocols (including the requirement for Malaria tablets) for any given international location. Individuals are responsible for ensuring that this advice is followed and certificates are available well in advance of departure to overseas assignments.

This fact sheet is for information only and is not to be used for self-diagnosis or as a substitute for consultation with a health care provider. If you have any questions about the disease described above or think that you might have malaria, consult a health care provider.