



Malaria

What is malaria?

- Malaria is a serious and possibly fatal disease that is caused by a parasite.
- The parasites multiply in the liver and then infect red blood cells. Toxins are released that make the infected person sick.
- Malaria occurs in over 100 tropical and sub-tropical countries.
- Each year, over 200 million cases of malaria occur worldwide. In 2017, 435,000 infected people died.
- There are several anti-malarial drugs used to prevent malaria.

How does a person get malaria?

- Malaria is spread by the bite of an infected female *Anopheles* mosquito.
- These mosquitoes usually bite during low light times (e.g. at dusk, dawn and at night).
- Once an infected mosquito bites a person, the illness usually begins 7-21 days later, however the parasite may lie dormant in the liver for up to 1 year, depending upon the type of malaria. During this time, a person may not feel sick.
- Malaria can also be spread through used syringes, blood transfusions or by transfer from a mother to unborn child.

What is the risk of getting malaria?

- The risk depends on the country of destination, the duration of stay, the time of year, the activities during travel, and your health status.
- There is a greater risk of mosquito bites in rural areas, between dusk and dawn, during and after the rainy season, and at altitudes below 2,000 m (6500 ft).
- Malaria is less common during dry seasons and among people who stay in

air-conditioned or screened accommodations.

- Pregnant women, infants, children and people with a weakened immune system are more susceptible to severe disease. These people should consider changing or postponing their travel plans if malaria risk is part of their destination.
- People who have lived in areas where malaria occurs may have developed a natural immunity to the disease through repeated exposure, but lose this immunity within 6 months of leaving the area. Immigrants to Canada from malaria risk areas still require anti-malaria medication when visiting their home country and other countries with risk of malaria.

What signs and symptoms can you have?

- Early symptoms include headache, muscle or joint aches, fatigue, nausea, vomiting, and low appetite.
- Cycles of severe shaking chills, fever and sweating may occur.
- Infection with *Plasmodium falciparum* malaria can cause kidney and liver failure, bleeding, swelling of the lungs and brain, mental confusion, seizures, coma and death.
- Since these symptoms are similar to those of a flu-like illness, they should not be ignored. Progression to severe malaria can be very rapid, with death occurring within 36-48 hours.
- Malaria can be life-threatening if not treated early.

How can you protect yourself against malaria?

- Visit your Travel Health Centre several weeks before departure, for a risk assessment, information and a prescription for antimalarial drugs.

- Reduce your exposure to mosquitoes while traveling. Key personal protective measures include use of both insecticide treated clothing and bed nets, and personal insect repellants (see Insect Precautions handout).
- Take anti-malarial drugs if recommended. There are several different antimalarial medications, and the recommendation depends on the destination, length of exposure, age and health status. It is **VERY** important to take the medication as prescribed.
- The medication must be taken on a regular basis. It must be started before entering the malaria risk area, continued while there, and taken for a period of time after leaving.
- The majority of people taking anti-malaria medications (95 to 99%) have either no or only mild temporary side effects.
- No anti-malarial drug gives complete protection. However, one of the advantages of taking medication is that, if malaria does develop, its severity is usually reduced.

Where do you go if you have malaria symptoms when you are home?

- Malaria should be suspected for all persons who develop fever or flu-like illness within 1 year after travel to malarious areas, and immediate health care should be obtained at a hospital Emergency Department.
- A blood tests is necessary to confirm or rule out malaria, even if you have taken anti-malarial medication.
- If the test is negative, have it repeated within 12-24 hours for a total of three negative tests.

Where do you go if you have malaria symptoms while still travelling?

- Urgently seek medical advice if you develop fever while traveling after seven days in a malarious area. Present at a credible health facility.
- Request a blood test examination for malaria parasites. If the test is negative, have it repeated within 12-24 hours with 3 negative tests.
- Early diagnosis and prompt treatment increases a person's survival rate.

How is malaria treated?

- A doctor can prescribe drugs to treat malaria. The type of drugs and length of treatment depend on the type of malaria, age, the country visited and how ill the person is.
- **Malaria deaths are often the result of delays in the diagnosis and treatment of the infection. Suspected or confirmed malaria is a medical emergency.**

PREVENT MALARIA:

- **Prevent mosquito bites**
- **Take an antimalarial drug**
- **Seek professional medical care immediately if you are sick**