

Malaria prevention

What is malaria?

Malaria is a very serious disease caused by different *Plasmodium* species. These tiny parasites can get into your bloodstream and multiply after a bite by an infected mosquito.

Because the malaria parasite is found in red blood cells of an infected person, in rare cases, a blood transfusion, an organ transplant or the shared use of needles or syringes contaminated with blood can transmit malaria. A mother may also transmit malaria to her unborn infant.

Symptoms of malaria can include:

- Headache
- Abdominal (stomach) pain
- Diarrhea
- Chills or sweats
- Shaking
- Fever
- Nausea and vomiting

If left untreated, malaria may cause seizures, anemia, jaundice, heart failure, kidney failure, respiratory distress, coma and even death.

Areas of the world where malaria is a risk include Africa, South East Asia, South Asia, the Middle East, Eastern Europe, South Pacific, Oceania, South America, Central America, and parts of the Caribbean and Mexico.

People who survive repeated or lengthy episodes of malaria as children will have some immunity to infection. However, this wears off a few years after moving away from an area with risk of malaria. People who move to Canada from at risk areas will need anti-malaria medication when visiting or returning to at risk areas.

How can I protect myself from malaria?

If you travel to an area at risk of malaria, you need to protect yourself before you travel, while you are travelling and when you return home.

Before travel

At least 4 weeks before you travel, speak with your health care provider or visit a travel health clinic. Ask about the risk of malaria in the area you plan to visit. If anti-malaria medications are recommended, you will receive a prescription. Some anti-malaria medication should be started at least one week before travelling.

Make sure you are aware of the possible side effects of the prescribed anti-malaria medication and know how to take the medication correctly. It is best to take the medication with food and plenty of water to reduce stomach upset. Taking anti-malarial medication does not guarantee that you will not get malaria. It will reduce your chances of getting seriously ill and dying from malaria.

While travelling

You need to take your anti-malaria medication for the entire time you are travelling. If you have side effects from the medication, do not stop taking it without getting advice from a health care professional.

Protect yourself and your family from mosquito bites by doing the following:

- Wear light-coloured clothing, long sleeve shirts, pants and socks. Treat clothing with an insect repellent before wearing them. Travel health clinics can also tell you how to buy gear pre-treated with permethrin before or during your trip
- Most mosquito bites happen between dusk and dawn. When you are outside between dusk

and dawn, use insect repellent on all exposed skin. The most effective repellents contain the ingredient DEET or icaridin. For more information about using insect repellents containing DEET, see [HealthLinkBC File #96 Insect repellents and DEET](#)

- Products that combine sunscreen and repellent are not recommended. When using sunscreen, apply the repellent 15 to 30 minutes after the sunscreen
- Burn mosquito/insect coils in the evening in well-ventilated areas
- Sleep in places with screened windows and doors. Use air conditioning when available
- Sleep under a small-mesh mosquito net that is intact with no tears or large holes and has been sprayed with an insecticide. Tuck the mosquito net under the mattress before it gets dark each day, or first thing in the morning, to prevent mosquitoes from getting into your bedding. The mosquito net is important if you cannot stop mosquitoes from entering your room
- Spray insecticidal spray indoors in the evening
- Use non-perfumed cosmetics and toiletries. Scented products attract mosquitoes

When you return home

Anti-malaria medication does not prevent mosquito bites or parasites from getting into your body, but it prevents the parasites from multiplying.

You must continue to take your anti-malaria medication until it is finished, even after your return to Canada. The length of time depends on which drug you are prescribed, and whether you return home or travel to another destination. If you do not take the medication for the recommended time, the parasites may start to multiply in your blood and make you sick.

Even when taking anti-malaria medication, there is a small chance of developing the illness, sometimes months later. If you develop a fever within 1 year of your return home, or other symptoms such as constant headaches, muscle aches and weakness, vomiting or diarrhea, speak with your health care provider immediately about your travels. Malaria is treatable with early diagnosis and prompt treatment, which can also prevent serious complications.

How can I protect myself from malaria if I am pregnant?

The effects of malaria are more severe among pregnant women and developing babies, including a risk of miscarriage, stillbirth and death for mother and infant.

Pregnant women cannot take certain anti-malaria medications and should avoid travel to areas where anti-malaria medications are needed. If you must travel, visit your health care provider, or a travel clinic to find out if there is a safe anti-malaria medication. You should also be careful to avoid mosquito bites.

Seek medical attention immediately if you develop a fever while travelling, or when you return home.

For more information, see [HealthLinkBC File #41g The pregnant traveller](#) and [HealthLinkBC File #41d Travelling with children](#).