

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.

The malaria parasite is found in the 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 pregnant person may also transmit malaria to their 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 Asia
- The Middle East
- Eastern Europe
- South Pacific
- Oceania
- Central and South America
- Parts of the Caribbean and Mexico

People who survive repeated or lengthy episodes of malaria as children will have some immunity to infection. Immunity 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. Learn how to take the medication correctly. It is best to take the medication with food and water to reduce stomach upset. Taking anti-malaria 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

Take your anti-malaria medication the entire time you travel. If you have side effects from the medication, do not stop taking it without advice from a health care professional.

Protect yourself and your family from mosquito bites the following ways:

- 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, visit [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 or 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. This prevents mosquitoes from getting into your bedding. The mosquito net is important if you cannot stop mosquitoes from entering your room
- Use 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. The medication prevents the parasites from multiplying.

You must finish your anti-malaria medication, even after you 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 months later. Speak with your health care provider immediately if you develop a fever within one year of your return home or other symptoms such as:

- Constant headaches
- Muscle aches and weakness
- Vomiting
- Diarrhea

Malaria is treatable with early diagnosis and prompt treatment. Early action can prevent serious complications.

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

The effects of malaria are more severe among pregnant people and developing babies. Risks include miscarriage, stillbirth and death for mother and infant.

Pregnant people 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 discuss safe anti-malaria medications. 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

For more information on travelling and your health, visit the following HealthLinkBC Files:

- [HealthLinkBC File #41g The pregnant traveller](#)
- [HealthLinkBC File #41d Travelling with children](#)

For more HealthLinkBC File topics, visit www.HealthLinkBC.ca/health-library/healthlinkbc-files or your local public health unit. For non-emergency health information and advice in B.C., visit www.HealthLinkBC.ca or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.