

Malaria

Information Sheet

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What is it?

Malaria, said *ma-leer-ee-a*, is a serious and sometimes fatal disease caused by a parasite in a certain type of mosquito which transfers to humans through the mosquito's bite. The parasite gets into a your liver where it grows and then infects your blood.

Four kinds of malaria parasites infect humans: *Plasmodium falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*. Although malaria can be a deadly disease, illness and death from malaria can usually be prevented.

What are the signs and symptoms?

Symptoms of malaria include fever and flu-like illness, such as shaking and chills, headache, muscle aches and tiredness. You may also have nausea, vomiting and diarrhoea (runny poo). Malaria may cause anaemia (a lack of red blood cells) and jaundice (yellow colouring of the skin and eyes). For most people, symptoms begin 10 days to 4 weeks after a mosquito bite, although a person may feel ill as early as 7 days or as late as 1 year later.

Malaria can cause a fever that comes and goes. When there is no fever, a person with malaria can look and feel well. Malaria does not always cause the same ongoing symptoms. The golden rule is that any person with a fever or flu-like illness who has been to a malaria-risk area in the past 12 months should be tested for the disease.

How serious is it?

One type of malaria, *P. falciparum* can be deadly and must be treated quickly. *P. falciparum* is very common in many countries south of the Sahara desert. If you have visited this area and have any fever or flu-like symptoms, go to a doctor or hospital immediately and ask to be tested for malaria.

P. falciparum malaria may cause kidney failure, seizures, mental confusion, coma and death. *P. falciparum* is also called *malignant malaria*.

Who is most at risk?

People who have little or no immunity to malaria, such as young children, pregnant women or travellers coming from areas with no malaria, are more likely to become very sick and die.

How could I get infected?

Malaria is caused by a parasite that is transferred to humans by the bite of a female *Anopheline* mosquito. These mosquitoes usually bite at night – mostly between two hours after the sun goes down and two hours before dawn.

Malaria is typically found in tropical and subtropical countries, including Papua New Guinea, Vanuatu and the Solomon Islands, parts of Central and South America, Africa, South Asia, South-east Asia, and the Middle East. Most malaria cases and deaths occur in sub-Saharan Africa. You cannot catch malaria in New Zealand as we do not have the *Anopheline* mosquito here. Travellers from malaria-free regions going to areas where there is malaria transmission are highly vulnerable - they have little or no immunity and are often exposed

to delayed or wrong diagnosis when returning to their home country.

Because the malaria parasite is found in the red blood cells of an infected person, malaria can also be transmitted through blood transfusion, organ transplantation, or the shared use of needles or syringes contaminated with blood. Malaria is not spread from person-to-person like a cold or the flu. You cannot get malaria from casual contact with a person infected with malaria, such as sitting next to someone with malaria.

How do I protect myself and others?

There is no vaccine to prevent malaria.

To avoid getting malaria:

Preventing mosquito bites is a very important way to stop malaria. You and your family/friends can stop malaria by:

- Taking anti-malarial drugs to kill parasites if you are bitten by a mosquito – these need to be taken before you travel (more information below)
- Wearing clothing that covers your arms and legs, especially if outside at night.
- Using permethrin insecticide on your clothes. Permethrin can be bought at Travel Medicine Clinics
- Sleeping under mosquito nets, preferably impregnated with permethrin
- Using insect repellent on your skin. The best repellents contain DEET (diethyl toluamide) - at a concentration of 30% to 50%
- Using electric insect-repellent devices, or mosquito coils
- Staying in accommodation that has screens on doors and windows, or is air-conditioned

Many effective anti-malarial drugs are available. Your healthcare provider can help you decide on the best drug for you based on your travel plans, medical history, age, drug allergies, pregnancy status and other health factors. To allow enough

time for the drugs to become effective, and for a pharmacy to prepare any special doses of medicine (especially doses for children and infants), visit your healthcare provider 4-6 weeks before you travel overseas.

Will I need to take time off work, school or preschool?

Provided you feel well enough, you do not need time off work, school or early childhood education. The *Anopheles* mosquito that spreads Malaria is not present in New Zealand, and Malaria is not spread person-to-person, except by sharing blood. Do not share used needles and syringes contaminated with your blood.

How is it treated?

Malaria should be treated early, before it becomes serious and life-threatening.

Several good anti-malarial drugs are available in New Zealand. The type of drugs and length of treatment will depend on several factors, including the type of malaria you have, where you were infected, your age, whether you are pregnant, and how sick you are at the start of treatment.

Where can I get further information?

For further information on malaria please contact your doctor or Hawke's Bay District Health Board Population Health on (06) 834 1815. You can also phone Healthline on 0800 611 116 at any time of the day or night to speak to a registered nurse.

You can also find more information on these websites:

<http://www.cdc.gov/malaria/>

<http://www.wpro.who.int/topics/malaria/en/>