

# Malaria

Malaria is caused by a parasite which is spread through the bite of particular types of mosquito (*Anopheles* species). There are five types of malaria parasites. The type called falciparum malaria is particularly dangerous because unless treated promptly it can cause severe illness and even death.

Australia was certified as being malaria free by the World Health Organization (WHO) in 1981. However, several hundred imported cases of malaria are recorded in Australia each year. Travellers to regions where malaria is present need to take precautions to avoid mosquito bites, and often anti-malarial drugs, to prevent malaria.

Malaria occurs in many countries but the regions of greatest risk to Australians include:

- the south-west Pacific (Solomon Islands, Papua New Guinea and Vanuatu)
- Asia (in particular parts of Thailand, Myanmar, Sabah, Vietnam and India)
- Africa (with the East African countries posing a very high risk).

Travellers should get advice on anti-malarial drugs from their doctor before departure. Visitors to resort areas and major cities in Southeast Asia do not usually require anti-malaria drugs. However, even short term visitors to Papua New Guinea and the Solomon Islands (including Port Moresby and Honiara) should take anti-malaria drugs.

## Signs and Symptoms:

The most common symptoms of malaria are high fever, headache, backache, nausea, vomiting, and muscle and joint pains. In untreated or incompletely treated people, some malaria parasites may persist and cause recurrent symptoms for years.

The period between the bite of an infected mosquito and the appearance of symptoms may be as short as nine days, but sometimes people don't become ill until months or, rarely, years after the bite.

## Transmission

Malaria is not transmitted from person to person. Malaria is spread to people by the bite of particular types of mosquito. When a mosquito bites a person with malaria parasites in their blood it becomes infected with malaria. After a period of development inside the mosquito, malaria parasites can be transmitted to another person who is bitten by the infected mosquito. The mosquito is infected for life and can continue to infect people.

## Treatment:

There are several effective drugs for treating malaria, though treatment needs to take into account the possibility of resistant malaria parasites, which varies depending on the geographical area. Early malaria can usually be easily treated whereas late, severe or complicated malaria can be a life-threatening medical emergency. Some types of malaria may re-occur, requiring additional treatment.

## Prevention:

Travellers visiting areas where malaria is common should consult their doctor to determine which anti-malarial drugs are required. There are a variety of drugs available - recommendations vary according to the destination, duration of travel, and other personal factors. In some circumstances (eg. pregnancy and childhood) it may not be safe to take the appropriate drugs - if so, it will be safer not to travel to a malaria-affected area, if this is possible.

Anti-malaria drugs should be taken as recommended, including for the recommended period after leaving a malaria-affected area. Do not stop them without consulting your doctor. No anti-malaria drug is 100% effective, so malaria can still occur in people who take their drugs regularly. It is therefore also important to protect yourself from being bitten by mosquitoes:

- Avoid going outdoors between dusk and dawn in rural and urban fringe regions of malaria-affected areas.
- If outdoors after dusk, wear light coloured, long sleeved clothing and long trousers. Do not use perfumes or aftershave lotions as these fragrances attract mosquitoes.
- Sleep in properly screened rooms and use knockdown insect spray to kill any mosquitoes present in the room. Use mosquito coils or plug-in 'zappers' at night.
- Use mosquito nets when sleeping unless accommodation is air conditioned or has mosquito screens on doors and windows.
- Use insect repellents containing diethyl toluamide (DEET) or picaridin on exposed skin, particularly at night. If you have young children or babies, ask a pharmacist for an insect repellent that is suitable for them.

If you become ill with fever within a year of travel to a malaria-affected region, it is important to inform your doctor of your travel and of the possibility of malaria.

## Control

It is possible that local spread of malaria could occur in Australia if infected people travel to areas where the *Anopheles* mosquito is present. In

Queensland this includes some areas of north Queensland, including as far south as Mackay. Public health units in Queensland follow up all people notified with malaria to determine if any control measures are required.

### Help and assistance:

For further information please contact your local doctor or nearest [public health unit](#) (<https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units>) or 13HEALTH (13 43 25 84).

### Footnotes

Heymann, D ed. 2009. *Control of Communicable Diseases Manual*, 19th edition. Washington, DC: American Public Health Association.