

travelling to countries with malaria

Malaria is a very serious disease that kills around 800,000 people every year. The onset of symptoms in malaria can be very rapid, making it imperative that appropriate medical help is sought as quickly as possible. Young children and pregnant women are particularly vulnerable; however, any unwary traveller may also be at risk.

There are currently over 100 countries/areas malaria endemic, which are visited by more than 125 million international travellers every year. Travellers are particularly susceptible to malaria as they often come from non malarious regions and have not developed any immunity to the disease. This includes individuals who grew up in malaria endemic countries but have moved away, as immunity to malaria does not last long without constant exposure to the parasite – perhaps 12 months at most. Pregnant women, the elderly, young children and those with underlying health conditions which might affect their immunity such as patients on steroids or who are HIV positive are all at an increased risk, particularly of developing severe malaria.

It can also sometimes be difficult to get the correct diagnosis. If a traveller falls ill with malaria while travelling in an endemic region, access to the correct diagnosis, treatment and medical advice may not be easy to find and involve a long journey and considerable expense. In countries where malaria is not present, doctors are often unfamiliar with the signs and symptoms of malaria causing the diagnosis to be delayed. In these countries medication to treat malaria may also not be registered or available quickly. Fever up to three months after visiting a malaria endemic country should be urgently investigated.

fact sheet

Malaria is a very treatable disease but effective management is dependant on rapid diagnosis and treatment. If this is not available then progression to severe malaria can occur very quickly and can be fatal even in places where medical facilities are of a high standard. This rapid progression is most likely with *P. falciparum* infection and can develop within 24 hours after the first onset of clinical symptoms of malaria.

The three other species of malaria, *P. vivax*, *P. malariae*, *P. ovale*, are milder infections and less likely to be fatal. However, *P. vivax* and *P. ovale* infections are known to reoccur months or even years after a full recovery from the initial infection. This is because dormant liver stages of the parasite remain after first line treatment. To combat these relapse infections, initial treatment should include a combination of drugs to target both the blood and liver stages of the parasite. These treatments themselves carry risks and so prevention is much the wisest course.

The Disease

All species of malaria are transmitted by the female Anopheles mosquito. Malaria causes a febrile (fever-based) illness and has an incubation period of seven days or longer, therefore, a febrile illness developing before one week of the first possible exposure is almost certainly not malaria.

Symptoms

Symptoms include:

- Fever
- Chills
- Headache/body aches
- Muscular weakness/tiredness
- Vomiting

- Coughing
- Diarrhoea
- Convulsions
- Organ failure
- Coma

Prevention

Most cases of malaria in travellers occur because of poor adherence to or complete failure to use medicines, or through the use of inappropriate prophylactic malaria drug regimens, combined with failure to take adequate precautions against mosquito bites.

Avoidance of bites

The Anopheles mosquito bites between dusk and dawn. Therefore, if you are going out at night time wear long sleeved tops and trousers as well as spraying clothes and exposed skin with insect repellent/insecticide as mosquitoes can bite through thin clothes.

Sleeping under an insecticide treated mosquito net is an effective and essential form of protection especially in malaria endemic areas.

Spraying a room with insecticides and burning parathyroid coils help to control the number of mosquitoes in a room. However, only nets will stop mosquitoes biting.

There are many other natural remedies that are thought to prevent mosquitoes biting, however, they have not been scientifically verified and so should be considered with caution. If desired, they should be used in combination with, not instead of, the proven measures mentioned above.

Anti-malarial chemoprophylaxis

No chemoprophylaxis treatment (medication that can be taken to prevent infection) for malaria is 100% effective and all should therefore be used in combination with other preventive measures.

The chemoprophylaxis (anti-malaria drugs) recommended for use varies for different countries and is dependant on drug resistance, species of malaria and prevalence. In some countries the likelihood of malaria transmission is very low, so precautions against mosquito bites may be recommended as adequate.

Chemoprophylaxis can have risks and side effects. Some of these are listed below:

Proguanil - can cause nausea and simple mouth ulcers.

Chloroquine - can cause nausea, temporary blurred vision and rashes.

Mefloquine - patients with a history of psychiatric disturbances (including depression) should not take mefloquine as it may precipitate these conditions.

Doxycycline - does carry some risk of photosensitisation i.e. can make you prone to sunburn.

Malarone - is a relatively new treatment and is virtually free of side effects. It is licensed for use in stays of up to 28 days but there is now evidence of it being taken safely for up to three months.

All prophylactic drugs should be taken with unfailing regularity for the recommended period, both preceding and for the duration of the stay in the malaria risk area, and should be continued as prescribed after the last possible exposure to infection since parasites may still emerge from the liver during this period.

For more information on the risks presented by malaria, prevalence rates around the world and advice on what protective measures to take when travelling to malaria endemic countries, contact a health professional or visit:

[WHO International Travel and Health 2011.](http://www.who.int/travel-and-health)

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