

# Profylaxis of malaria essay

[Parts of the World](#), [Asia](#)



Compare and contrast the medicines used in the prophylaxis of malaria. The bite of an infected female Anopheles mosquito can cause protozoan parasites which when passed on from human to human can generate the well known tropical disease known as malaria. The prophylaxis of malaria, a vector borne infectious disease, is vital as prevention for this disease is very necessary. Malaria can be infected in humans by four separate species of plasmodium parasites. These parasites are Plasmodium falciparum, Plasmodium vivax, Plasmodium ovale and Plasmodium malariae. The major difference in these plasmodium parasites is that Plasmodium falciparum can cause life threatening malaria and the other three cause a weaker acting malaria.

Malaria can be traced in regions of tropical and subtropical climate. Regions in continents such as the Americas, Africa, and Asia are commonly known areas where the spread of malaria can be established. These malaria endemic areas are a risk to travellers.

Due to the varied risks across the different areas and within the different climates the prophylaxis is different also. The differences are in length of the prophylaxis and the medicines used for the different regions travellers go to. The medicine is chosen according to the risk of exposure to malaria, extent of drug resistance, efficacy of the recommended drug, side effects of the drug, and patient related factors such as age; pregnancy and renal or hepatic impairment. Prophylaxis for malaria is not fully possible but the combination of bite avoidance and chemoprophylaxis ‘ malaria tablets’ will give considerable defence against malaria. Chloroquine, Doxycycline, Mefloquine, Primaquine, Proguanil, Pyrimethamine, and Quinine are the most

common drugs used to prevent malaria prior to travelling. Beginning with Chloroquine which is not advised for travellers to take who have renal impairment as it is excreted by the kidneys is also advised if wanting prophylaxis from malaria way in advance. Chloroquine along with mefloquine are unsuitable for patients with epilepsy. In areas without chloroquine resistance Proguanil 200mg daily can be recommended.

Mefloquine and Doxycycline is considered to be appropriate when patients have renal impairments. Prophylaxis should usually start a week prior to travelling. Prophylaxis when taking mefloquine should start two – three weeks prior to travel. The prevention process should be continued for four weeks after travelling in the tropical climates. This is true for all except for Malarone prophylaxis which should be completed one week after leaving. Patients whom require long term prophylaxis against malaria Chloroquine and proguanil may be used for a timescale of five years.

Other long term prophylaxis can last up to two years; an example of this is Doxycycline. Mefloquine is licensed for one year however can be used for up to three years without undue problems. Chloroquine and proguanil can be given in usual doses during pregnancy; however, these two means of prophylaxis are not effective in most areas as their effectiveness has declined especially in certain areas in Africa. In areas of the world where there is a low resistance of falciparum