How to prevent malaria while travelling

By Sharron Linvingston

Malaria, one of the world’s biggest killers, is an infectious disease passed on by a mosquito bite. The following separates facts from myths, answers frequently asked questions and helps prevent malaria while travelling.

There are many myths surrounding the disease, ranging from “I hardly ever get bitten by mosquitoes so I’m not at risk” to “I am staying in a five star hotel so I’ll be fine”, but the facts are that it only takes one bite from an infected mosquito to contract malaria.

British travellers are increasingly visiting malaria hotspots with a 200% increase in travel in the past fifteen years. As they visit more exotic locations they are increasingly putting their health at risk by not taking the correct precautions. Travel should be fun but people should be malaria aware.

Where in the world
Malaria can be found in over 100 countries that are visited by more than 125 million international travellers every year. High risk areas are usually found throughout the equatorial regions where the climate is hot and wet throughout the year. Over two thirds of malaria cases are contracted in Africa and protection is still needed in parts of Central South America and South East Asia. Travellers in central and South America, especially areas in the northern Amazon rainforest, should also take precautions.

How does the disease spread?
The disease is spread by the female Anopheles mosquito, which transfers the plasmodium parasite when it feeds on human blood. This particular mosquito likes to bite between sunrise and sunset. There are four different species of the Plasmodium parasite each developing varying severities of malaria:
1. Plasmodium falciparum (the most lethal form)
2. Plasmodium vivax
3. Plasmodium ovale
4. Plasmodium malariae

Once a person is bitten by an infected mosquito, the plasmodium parasite is released into the bloodstream where it makes its way to the person’s liver. The parasite can travel to the liver within 30 minutes where it will rapidly multiply before re-entering the bloodstream to attack the red blood cells.

Note: This map shows countries with endemic malaria. In most of these countries, malaria risk is limited to certain areas.
How should travellers protect themselves?

Although our taste for travel to exotic destinations has grown, unfortunately our attitudes to pre-travel health advice is not quite as adventurous. A survey in 2003 revealed that nearly 60% of respondents failed to seek travel health advice, while a quarter of those surveyed were unaware of the risk. As well as misconceptions about how dangerous malaria is, there are also many myths about how people should protect themselves. People may falsely believe that staying in five star hotels will offer protection. The fact is that mosquitoes don’t discriminate between someone staying in five star luxury and someone sleeping rough in the jungle – they will bite you whatever type of accommodation you are in.

Before travel

It is imperative that travellers know whether or not the country they are visiting is malarious. They should seek advice from their healthcare professional before travelling in order to obtain the right information. Travellers should take their itinerary to their doctor at least eight weeks before they are due to travel but can still seek advice at the last minute. Some advice/protection is better than none. There are different forms of anti-malarial medication – a health-care professional (GP, practice nurse or travel clinic) will be able to advise on the most suitable one.

During travel

The risk of being bitten can be minimised by using insect repellent with 50% DEET (diethytoolumamide) on both skin and cotton clothes. Keep arms and legs covered at night and sleep under an impregnated mosquito net, if possible in an air conditioned room with screens on the windows. If a traveller has been prescribed antimalarials the important thing is to continue to take the medicine as instructed.

After travel

It is vital that travellers complete the prescribed course once they have returned home from their trip as the parasite can lay dormant in the liver for some time. Medical attention should be sought immediately if flu-like symptoms such as: headache, vomiting, fatigue and fever develop. Symptoms of the most deadly form of malaria are usually experienced between one week and three months after infection. Other less dangerous forms of the disease can manifest symptoms more than a year after the person has been bitten.

Key Facts

• The UK is one of the biggest importers of malaria among industrialised countries.
• Every year approximately 2,000 British travellers return home with malaria.
• It only takes one bite from an infected mosquito to contract malaria.
• Malaria is an infectious disease caused by a tiny parasite that invades red blood cells.
• Malaria can present from any time from about a week up to a year after exposure. Over 50% of cases among UK travellers tend to be people aged between 25 and 54.
• The incidence of malaria in children has tripled over the past 30 years.
• Malaria is a preventable infection but can be fatal if left untreated – an average of nine people in the UK die each year of malaria.
• Travellers are at risk when visiting malarious destination areas without taking bite avoidance measures and antimalarial medication.

Malaria myths

It is important that UK travellers separate myths from facts when protecting themselves from a deadly disease such as malaria:

Some common myths:

• Garlic, vitamin B and ultrasound devices will not protect you against malaria
• Eating Marmite® or other savoury yeast extract spreads will not prevent malaria
• Staying in a four or five star hotel, will not stop you getting bitten or contracting malaria. Mosquitoes don’t discriminate
• Drinking gin and tonic will not stop you getting bitten

Myth: All antimalarials have bad side-effects, which are worse than catching malaria
Fact: Catching malaria could put you in hospital and out of action for weeks, or even kill you. There are different types of antimalarials – talk to your healthcare professional about the best one for you

Myth: I’m taking homeopathic medicines to protect against malaria so I don’t need to do anything else to protect myself
Fact: There is no evidence that homeopathic or herbal medication will protect you from malaria. Seek advice on antimalarial medication from a healthcare professional before you travel.

Myth: I hardly ever get bitten and barely react to mosquito bites so I don’t need antimalarials
Fact: Everyone’s bodies react differently to mosquito bites but this is no indication of whether you have been bitten by a malaria-carrying mosquito. It only takes one bite to contract malaria

Myth: Antimalarials are not 100% effective therefore there is no point taking them
Fact: Antimalarials tend to be between 90 – 100% effective, and in combination with good bite prevention, can help stop you contracting malaria. Remember, malaria can be deadly
Is malaria a real danger to British travellers?

Unfortunately the answer is yes. Travel figures have revealed an increase of nearly 150% in travel to popular malarious destinations such as Africa and India over the past ten years. Every year, some 2000 UK travellers contract malaria and on average nine will die as a result of infection. Even if treated, malaria can be painful and debilitating, so it is advisable to protect yourself.

Your healthcare professional will know if you are travelling to an at-risk destination and will be able to offer you advice about preventing the disease.

How can I contract malaria?

Malaria is an infectious disease that is transmitted by certain types of mosquito. It only takes one bite from an infected mosquito to contract malaria. While feeding on your blood, an infected mosquito releases the malaria parasite into your body, which rapidly goes to the liver and reproduces before spreading back into your bloodstream.

Do I really need to bother taking precautions?

Yes, malaria is potentially very dangerous. The good news is that it is preventable by avoiding getting bitten in the first place and by taking antimalarial medication.

In most cases it can be treated if diagnosed quickly enough, so if you suffer from flu-like symptoms having visited a malarious country within the past year, then you should seek immediate medical help from your doctor.

In which countries can I contract malaria? Am I safe if travelling in the dry season?

Malaria exists in areas such as Africa, South America, Asia and South East Asia. In some areas mosquitoes may be more active during the wet season, but mosquitoes can bite all year round. You should not assume that by travelling in the ‘dry season’ you are safe as it only takes one bite by an infected mosquito at any time of the year to contract malaria. Your healthcare professional will be able to tell you if your destination is malarious and give you the right advice and medications.

I have heard that some antimalarial medications are ineffective as malaria has become resistant to them, is this true?

In some parts of the world, some of the older drugs may not give full protection. It is best to speak to your healthcare professional who can give you up-to-date information on all medications and which ones are suitable for you and the countries you are travelling to.

When I have travelled before, other travellers seem to be taking different medication to protect against malaria. Why is this?

There are a number of different medications and different ones suit different people. What’s right for one traveller may not be right for another. Also, other travellers may be following a completely different itinerary to you and taking a medication that’s suitable for their particular destination. You should always keep to the advice given to you by your healthcare professional who should have taken your travel itinerary and individual health needs into account. Above all, maintain taking your medication and don’t be swayed into doing otherwise.

Fellow travellers have told me that I don’t need to use antimalarials, I wonder if I should bother?

While fellow travellers are a great source of information for where to go, what to see and how
to get about in different countries, they are probably not completely up to speed about travel health. It is strongly recommended that you seek expert pre-travel health advice six to eight weeks before you travel to ensure that you are protecting yourself against malaria and other infectious diseases.

Q I am only travelling to a malarious area for two days throughout my entire trip, is it worth taking antimalarial medication for such a short duration?

A Yes, as it only takes one bite from an infected mosquito to contract malaria. Take your travel itinerary to a health care professional six to eight weeks before you travel and explain where you will be travelling to and how long you will be staying. You will be advised whether you need to take antimalarial medication and how long you should take them for. It is important to follow the advice you are given to ensure you are protected against malaria during and after your travels.

Q I’ve heard that if I eat garlic this will stop me from being bitten by a mosquito and help prevent malaria. Is this true?

A There are a lot of myths and inaccurate information about protecting yourself from malaria. There is no scientific evidence that eating garlic, Marmite® (or any other savoury yeast extract), or taking vitamin B will protect you from malaria. There is also no scientific evidence that homeopathic or herbal medications are effective against malaria. Seek advice on how to avoid getting bitten and on antimalarial medication from a healthcare professional before you travel.

Q I have been given antimalarial medication which I’ve been told I have to keep taking after I get back from my trip. Is this right?

A All antimalarial medication needs to be taken before, during and after your travels. Taking it everyday and completing the full course is very important. This is because the malaria parasite can sit in the liver long after you’ve left the malarious area. It needs to be eradicated by fully completing the course of medication. Failure to do so could be fatal.

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Q Where can I get advice about malaria?

A You should book an appointment with your healthcare professional six to eight weeks before your travels. Many local surgeries operate dedicated travel health clinics managed by a specialist travel nurse. It’s worth telephoning your surgery to find out if they offer this clinic and on what day of the week you will be able to visit the clinic. Pharmacists will be able to offer you some travel health advice, but they will not be in a position to offer you the full range of anti malarial medications as you may need a prescription for these. The other option is a private travel clinic, which can be found in your local directory.

Q What happens if I do contract malaria?

A Malaria, though potentially fatal, is treatable if diagnosed quickly. If while travelling or within one year of travelling, you develop flu-like symptoms (such as fever, chills, pain, weakness, muscle aches, vomiting, cough, diarrhoea or abdominal pain) you must urgently seek medical attention and tell your doctor that you have been travelling in a malarious area.