



Dedicated to Providing the Ultimate Health & Hygiene Protection for Travellers

Mosquito Borne Disease

Mosquitoes are one of the world's deadliest insects helping to spread disease. Worldwide it is estimated that 1 million people die from Malaria each year.



Biting insects are attracted to the kairomones humans produce, such as lactic acid and carbon dioxide. The more you sweat, the more attractive you are to mosquitoes. Make sure to use insect protection, so you are not breakfast, lunch and dinner!

In this guide we highlight the main diseases that mosquitoes carry.

Malaria

What is it?

Malaria is contracted when you are bitten by an infected mosquito carrying the malaria parasite in its saliva. The parasite then travels to the liver and enters your blood stream, multiplying in large numbers and invading the red blood cells to cause a fever. It only takes a single infected bite to contract the disease. Once in the bloodstream, the Malaria parasite can lie dormant for up to one year.



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Where is it found?

Malaria is widespread in many tropical and sub-tropical regions. Prepare well in advance of your trip to make sure you are prepared with anti-Malaria medication and insect protection products.

Symptoms

Symptoms can include fever, excessive sweating, flu-like illness, headache, chills, diarrhoea, nausea, vomiting, and sometimes anaemia and jaundice. If the disease is left untreated and takes hold it can lead to severe symptoms such as seizures, kidney failure, coma and death.

Malaria can occur whilst taking anti-Malaria tablets (which are not fully effective) and also after you have finished taking tablets.

Most Malaria cases develop after 10 days to 3 weeks of being bitten.

Treatment

Malaria can be cured by drug treatment, however prevention is better than cure. Insect protection and anti-Malaria tablets should be taken. Anti-Malaria tablets do not give 100% protection. If a fever develops always seek medical attention immediately. Emergency medication is available to treat Malaria.

Yellow Fever

What is it?

Rainforest mosquitoes and *Aedes aegypti* mosquitoes carry the Yellow Fever virus. Yellow Fever is often fatal and travellers should ensure they use insect repellents and mosquito nets. A vaccine is available for those travelling to high risk areas.

Where is it found?

It is most often seen in Central and South America and Sub-Saharan Africa.

Symptoms

Yellow Fever symptoms can include nausea, vomiting, jaundice, and at its most serious, kidney failure and bleeding. Up to 60% of those with the disease will die.

Incubation period of 3-6 days.

Treatment

There is no drug to cure the disease. An effective vaccination for Yellow Fever is available and we would advise looking at the FCO travel advice pages, to make sure you get all necessary vaccinations before you travel.

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Dengue Fever

What is it?

Dengue Fever is caused by a virus spread by the *Aedes aegypti* mosquito which mainly bite during the daytime. Outbreaks following the monsoon season are common when mosquitoes actively breed.

Where is it found?

Areas at high risk of Dengue Fever include Africa, Middle East, South East Asia, Northern South America and the Pacific regions. This widespread disease can often be found in urban and rural areas in tropical and sub-tropical regions.

Symptoms

A very unpleasant illness, but not usually life threatening. Dengue Fever can involve a sudden fever, crippling joint and muscle pains, and headache. The fever usually subsides after a couple of days, although Dengue Fever can reoccur shortly after the first infection as immunity is not developed.

In very rare cases Dengue Haemorrhagic Fever (DHF) can occur, an extremely severe form of the disease. DHF leads to the blood vessels becoming infected and a severe temperature and skin rash forming, and later death.

Incubation period of 3-8 days.

Treatment

Mosquito protection is the only method of prevention. Kit yourself out with a mosquito net and insect repellent before travelling to high risk areas. No vaccine is available.

It is advised that sufferers keep well hydrated and do Not take Aspirin type drugs, as these can make symptoms worse.

West Nile Virus

What is it?

More than 36 species of mosquito are thought to carry West Nile Virus, a disease that was first discovered in Uganda in 1937. Typically it is spread to humans by an infected *Culex* mosquito bite, which generally feed at dusk and dawn.

The frequency of outbreaks has continued to rise since the 1990s.

Where is it found?

Found across the globe; Africa, Middle East, Asia, Europe, Canada and America.

Symptoms

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The virus is mild in most cases, with flu like symptoms, muscle pain and headaches. Many people will have no symptoms. Less than 1 in 100 people infected by the virus develop serious symptoms. In such cases inflammation of the brain can occur, causing confusion, Meningitis, muscle weakness, difficulty swallowing, loss of consciousness and rarely fatality.

Incubation period of 3-14 days.

Treatment

There is no specific treatment for West Nile Virus and it is important to use insect protection for prevention.

Filariasis

What is it?

A worm infestation spread by many species of mosquito and other flying insects. Long thread worms live under the skin and lymphatic tissues. The larvae these worms produce are ingested by mosquitoes when they suck blood. Mosquitoes continue to spread the disease by passing it from human to human.

Where is it found?

In the tropics of Southern Asia, the Western Pacific Islands, Caribbean, South and Central America, Egypt, and sub-Saharan Africa.

Symptoms

Vary widely, though can include inflammation and swelling of the limbs, and even blindness in severe cases.

Treatment

There is no vaccine. Drug treatment is commonly given before the disease gets advanced.

Eastern Equine Encephalitis (EEE)

What is it?

Relatively unknown, EEE is a rare but deadly viral infection, passed onto humans through the bite of an infected mosquito. Salt marsh mosquitoes are the main carrier of the disease, prevalent in swampy areas in the Summer and early Autumn. It has a high death rate and there is no vaccine available.

Where is it found?

Watch out for this disease in North America, South America, Canada and the Caribbean. Cases have been reported in popular holiday destinations such as Florida and New Jersey.

Symptoms

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A high fever develops and convulsions, meningitis and coma can follow. Survivors of the disease can be left with long-term neurological damage.

Incubation period of between 3-10 days.

Treatment

No vaccine or drugs are available to specifically treat this disease, making it vital to take insect protection with you on your travels. The elderly and the young are particularly vulnerable to EEE.

Japanese B Encephalitis

What is it?

Japanese Encephalitis is a viral disease spread by the Culex mosquito, which is most active between dusk and dawn. Travellers should be vaccinated prior to travel and use a protective mosquito net at night.

Where is it found?

Mainly found in East and South East Asia. It is common following the monsoon season in China, Vietnam, Burma, Thailand, Cambodia, Korea, Laos, Nepal, India, Philippines, Sri Lanka, Indonesia, Singapore and Malaysia. Culex mosquitoes often breed in paddy fields and piggeries.

Symptoms

A flu-like illness is common with muscle pains, headaches, vomiting and diarrhoea. It is a serious disease and about 30% of cases lead to death. Severe headaches, convulsions, meningitis and inflammation of the brain can occur.

Incubation period of between 1-2 weeks.

Treatment

Treatment is through a vaccine. Two vaccines are available in the UK to protect against Japanese Encephalitis. There are no drugs specifically to treat this disease and general insect bite protection should be used.

Rift Valley Fever (RVF)

What is it?

RVF is a viral disease harboured by animals and carried by mosquitoes to humans. It was identified in the Rift Valley of Kenya, Africa, in 1931. When contracted through a mosquito bite, the illness is typically mild.

Where is it found?

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Africa and the Middle East.

Symptoms

Some people never experience any symptoms, but others commonly have flu-like symptoms, fever, muscle and joint aches, headache, vomiting, neck stiffness, loss of appetite and a dislike of bright light.

On occasion the disease will lead to more serious effects such as eye disease, neurological damage and Haemorrhagic Fever which involves liver damage and bleeding. If Haemorrhagic Fever develops death is likely to follow.

Incubation period of 2-6 days.

Treatment

No vaccine or specific treatment is available. In severe cases, supportive care is the main form of treatment.

Precautions should be taken when travelling abroad to avoid mosquito bites and ruminant animals, especially where birthing, butchering and slaughtering is taking place. Also be careful not to consume raw or undercooked meat and un-pasteurised milk.

Chikungunya Fever

What is it?

Chikungunya Fever is caused by a virus which is spread by the *Aedes aegypti* species of mosquitoes which often bite during the day. It is most prevalent after the rainy season when mosquitoes breed actively.

Where is it found?

South-East Asia, Africa, the Indian sub-continent and the Philippines.

Symptoms

Symptoms are not normally serious and may include a fever, nausea, vomiting, headache, fatigue, rash, joint and muscle pain. Most symptoms will clear up after a few days.

Incubation period from 2-12 days.

Treatment

There is no specific treatment for Chikungunya Fever. Flu-like symptoms can be treated with widely available pain killers such as paracetamol.

Every effort is taken to ensure that the information published on this website is accurate and informative. It is not intended to replace a consultation with an appropriately qualified medical practitioner.

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