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Malaria, What is it?

Malaria is a common but deadly infection in hot, tropical areas of the world. Malaria (although rarely) can also occur in temperate climates. Malaria is caused by a parasite known as **Plasmodium**, injected into your body (blood) by the bite of the female Anopheles mosquitoes.

Experts say Malaria is a disease of poverty — afflicting primarily the poor who tend to live in malaria-prone rural living places that offer very little or no barriers against mosquitoes.

It is very common in many areas in Africa, because of its wet, humid and hot climate. The dampness and warmth provide perfect breeding conditions for mosquitoes. These mosquitoes usually bite between dusk and dawn.



This is an illustration of a mosquito. It is a tiny insect. The colours used here are only suggestive.

FACTS

- Worldwide, 300-500 million people are infected with malaria each year, with about 2 million people dying each year.
- 90% of malaria deaths occur in Africa. It accounts for about 1 out of 5 childhood deaths. Malaria also contributes greatly to anaemia among children.
- Malaria is both preventable and treatable, and effective preventive and curative tools have been developed. When properly treated, a patient with malaria can expect a complete recovery.

Is there a vaccine for Malaria?

For many decades, there has been intense research into finding a malaria vaccine, but there has not been any available commercially. One that is being used in the mean time is called RTS,S/AS01. Currently, there are about seven countries in Africa, including Ghana, Gabon, Kenya, Mozambique, Tanzania, Burkina Faso and Malawi who are participating in a clinical trial for the vaccine. Later this year (2014) the World Health Organisation (WHO) may recommend

the use of the vaccine from 2015.

—Source: <http://www.who.int/immunization/topics/en/>

How can a person get malaria?

Malaria is caused by a parasite known as **Plasmodium** (say plaz-mo-dyum) This parasite is injected into your blood (body) by the bite of the female Anopheles mosquitoes.

When a mosquito bites an infected person, a small amount of blood is taken in which contains very tiny malaria parasites. After about a week, when the mosquito takes its next blood meal, these parasites mix with the mosquito's 'saliva' and are injected into the another person being bitten.

Because the **malaria parasite** is found in red blood cells of an infected person, malaria can also be transmitted through blood transfusion, organ transplant, or the shared use of needles or syringes contaminated with blood.

It can also be passed on from mother to child in (*called congenital malaria*) child birth. This can be very fatal. It is important that all expecting mothers try to keep away from being infected.

Malaria risk areas

Malaria is found in more than 100 countries, mainly in tropical regions of the world including:



● Large areas of Africa and Asia

● Central and South America

● Haiti and the Dominican Republic

● Parts of the Middle East

- Some Pacific islands, such as Papua New Guinea

What are the signs and symptoms of malaria?



The symptoms of malaria are not specific and can be mistaken for other diseases, it can be difficult to diagnose.

It is important that a blood test is made to be sure of what you are suffering from.

It is also vital that treatment starts within 24 hours of the onset of symptoms, to prevent progression to severe malaria or death.

The main symptoms include:

- A high temperature (fever) of 38°C (100.4°F) or above (occurs at regular times)
- Vomiting
- Sweating and shivers (also known as rigors)
- Body & Muscle pains
- Headaches
- Diarrhoea
- In some cases, it can affect the brain or kidneys.

In many health centers in Africa and malaria prone regions, it is common to see patients with these signs and symptoms being treated for malaria even before lab results come in.

All the signs and symptoms can be similar to other infections, but if they show in particularly malaria prone countries, they are most likely to be as a result of malaria.

How to prevent malaria

People living in malaria prone regions gradually build up some immunity to the disease, because they are continuously exposed to it. If you do not usually live in a malaria-prone region, it's even more important to take steps to prevent the disease. You can prevent malaria by following the **A-B-C-D of malaria prevention**.

A: Awareness of risk – be aware of what Malaria is, and how you can be infected (just like you are learning now, and share with friends and family)

B: Bite avoidance – take steps to avoid getting bitten by mosquitoes, especially between dusk and dawn.

C: Check – if you need malaria prevention tablets (especially if you live outside malaria prone regions)

D: Diagnosis – see a doctor straightaway if you have any symptoms while you're abroad, or for a year after you come back.

The key to preventing malaria is to avoid being bitten by mosquitoes. To ensure that you should...

● Use an insecticide mosquito net over your bed at night. This is a net that has been treated with chemicals that kill mosquitoes. They are safe for humans. Make sure it's tucked in under the mattress and that there are no holes in it.



Mosquito nets come in various shapes and colours. They all do a good job as long as they are tucked in well. It is even better if they are treated with insecticide.

● Spray your room often with an insecticide before you go to bed.

● Wear loose-fitting tops with long sleeves, trousers and socks if you're out at dusk or at night. You can also wear clothes that have insect repellent already in them. Light color clothing is better because the mosquitoes like dark areas.

● Apply a reliable insect repellent containing diethyltoluamide (DEET) to your skin and clothes. Your local pharmacy can advise on a good one.

● Cover bedroom doors and windows with fine mesh netting.

Use air-conditioning or a fan in your room, as mosquitoes are less active in cooler temperatures.

IMPORTANT: Mosquitoes thrive very well in humid, hot corners. This means an environment with constantly wet grass, collected water in cans (rubbish), puddles and stagnant water, etc will provide egg laying conditions and breed more mosquitoes. Keep doors and windows clear of things that mosquitoes can hide in. This way they cannot easily get into rooms to bite you.

TIP: *These days there are insecticidal curtains that hang in doorways and can kill mosquitoes even before they get into your room*

Malaria Fact Sheet

Below are a few interesting facts on malaria...

Malaria and infants:

Approximately 80% of all malaria deaths occur in young African children. Infants are vulnerable to malaria from approximately 3 months of age, when immunity acquired from the mother starts to wane.

Malaria prone regions:

Countries with high malaria occurrences is termed **malaria-endemic countries**

Malaria in pregnancy:

Malaria in pregnancy increases the risk of: maternal anaemia, stillbirth, spontaneous abortion, low birth weight and neonatal death.

Malaria and HIV:

These are two of the most devastating global health problems of our time. - Together they cause more than 4 million deaths a year. HIV-infected are particularly vulnerable to malaria.

Economic costs:

The economic costs of malaria in Africa is huge. Malaria is estimated to cost Africa more than USD 12 billion every year in lost GDP.

Incubation period of malaria:

The time between the infective mosquito bite and the development of malaria symptoms can range from 7 to 40 day depending on the type of Plasmodia involved. One strain of Plasmodium, called P. vivax, may have a prolonged incubation period of eight to 10 months.

Estimated malaria cases, 2010

Globally: 216 million

Africa: 174 million

Americas: 1 million

Eastern Mediterranean: 10 million

Europe: 200

South-East Asia: 28 million

Western Pacific: 2 million

Are you travelling? Read on...

Before you travel,

 Whether you are visiting family or friends or you booked your holiday with a travel agency, it is important that you get information on the 'malaria or mosquito status' of your destination. Your doctor may be able to help with that information, or contact your local travel office for that information.

If this is the case, speak to your doctor, who will give you a shot or some medicines to take.

● Take the recommended antimalarial drugs. These drugs can be prescribed to you by your doctor, or your local pharmacy shop can recommend a good one for you. Generally speaking, these are taken from one week before you travel until one month after you return, but this can vary depending on the type of drug and the country you're visiting. Antimalarial drugs are not 100% guaranteed. You should still take the other preventive measures. ([See Prevention Tips](#))

● Study your [malaria preventive tips](#) well to avoid mosquito bites

Drug Resistance:

A major problem is the steady increase in malaria's resistance to drugs used in both prevention and treatment.

This means that it takes longer to kill the parasites. Drugs should clear the parasites at an early stage, preventing them further maturing and reproducing. But research is showing that it becomes more difficult to eliminate the parasites from the body.



It is therefore important that you speak to your doctor before travelling.

Immediately seek diagnosis and treatment if a fever develops one week or more after entering an area where there is a malaria risk, and up to 3 months after departure.