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## MALARIA IN SOUTH AFRICA



Please consult your doctor before departing for South Africa for advice and professional guidance concerning malaria prophylaxis, as it changes regularly, so that you and your family can safely enjoy the amazing things this diverse and magical country has to offer.

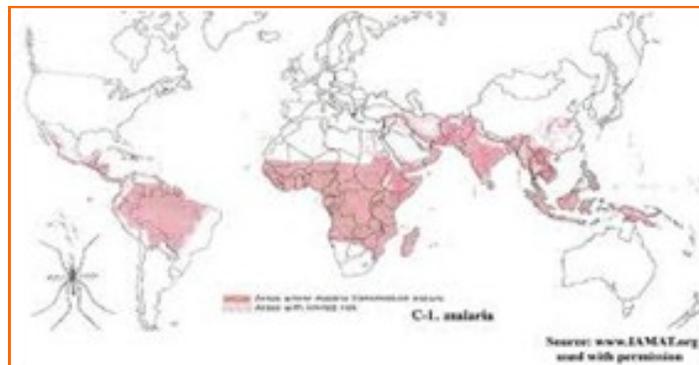
### Do I need to take malaria precautions? Background & Facts:

It is a fact that Malaria is one of the most serious and common tropical diseases in the world. However, there is no reason why this disease should deter you from coming to Africa if the necessary precautions are taken. Please note that if precautions are not taken and / or if the disease is not diagnosed and treated early, Malaria may be potentially fatal. The **Anopheles** female mosquito is the well known malaria carrier. In Spanish mosquito means "little fly". The word reportedly originated in the early 16th century. In Africa, mosquitoes are called "Mozzies". It is also said

that it is the most deadly animal in the world, causing 1 million deaths a year, primarily in Africa. Both male and female feed mainly on fruit and plant nectar, but the female also needs the protein in blood to help her eggs develop. Mosquitoes spend their first 10 days in water which is necessary for the eggs to hatch into larvae, called wigglers. Wigglers feed on organic matter in stagnant water and breathe oxygen from the surface. They then develop into pupae, which do not feed and are partially encased in cocoons. Over several days, the pupae change into adult mosquitoes.

Mosquitoes generally fly below 25 feet and can smell human breath. Sweat helps mosquitoes choose their victims. Our skin produces more than 340 chemical odours, and some of them smell like dinner to mosquitoes. They are fond of octenol, a chemical released in sweat, as well as cholesterol, folic acid, certain bacteria, skin lotions, and perfume. Mosquitoes **do not** transmit **HIV**. The virus that causes **AIDS** does not replicate in mosquitoes and is actually digested in their stomachs, so it's broken down without being passed on.

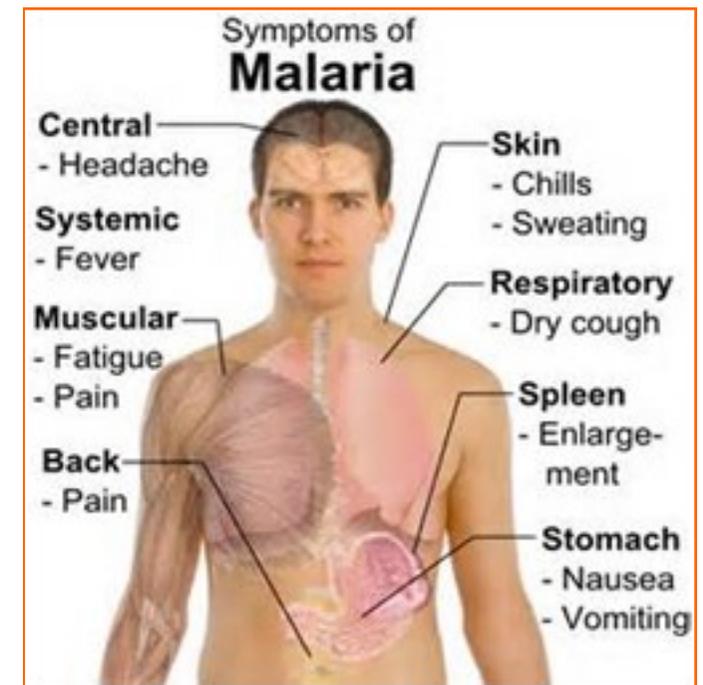
### Map of Malaria:



**Most** tourist areas in South Africa are malaria free; however, the north-eastern areas of the country, including the Kruger National Park, the low lying areas of Mpumalanga and the northern part of Kwazulu-Natal are at risk after the summer rains and during the summer months. Many travellers and locals do not take anti malarial medication, but most medical professionals will recommend you do for the complete safety and protection for you and your family.

### Symptoms of Malaria:

Should flu-like symptoms and signs of Malaria like body pain, headache and fever develop between 7 to 20 days or longer after visiting a Malaria area, inform your physician and ask to be tested for Malaria.

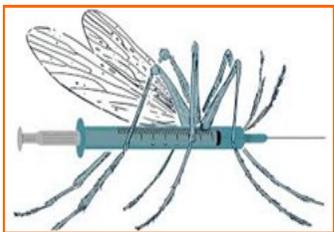


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## Precautions against Malaria:



✦ No preventative measures are 100% safe. The most important and most effective way of preventing Malaria is firstly to prevent mosquito bites. The following preventative measures can be taken:



✦ Remain indoors from dusk to dawn if possible as mosquitoes usually feed in the early evenings and mornings.

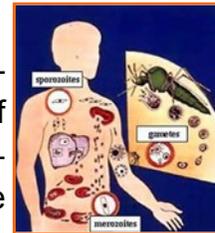
- ✦ Cover your arms and legs towards evenings with light coloured clothing to cover exposed skin areas and especially the ankles. Wear long sleeved shirts, long trousers, socks and closed shoes.
- ✦ Apply insect repellents to exposed skin areas (using a DEET based mosquito repellent) every 4-6 hours.
- ✦ Burn insecticide coils or electrically heated insecticide tablets in the rooms at night.
- ✦ Spray insecticide for flying insects inside the bedroom in the early evening with

windows / doors closed.

- ✦ Screened mosquito proof windows and doors and mosquito nets guard against mosquito bites.
  - ✦ Mosquito's doesn't like low (cold) temperatures and wind, an air conditioner or fan will keep them at bay.
- Another way of preventing Malaria is to take additional preventative drugs when visiting an endemic Malaria area, especially in the warm and rainy months from October to May.

## Medication:

Malaria treatment requires hospitalization, especially in case of infection. The preventative medication of choice for visitors to the Kruger National Park and surrounding areas is a combination of Chloroquin and Paludrine. Chloroquin is taken on a weekly basis and Paludrine daily. The first dose of Chloroquine should be taken a week before entering a Malaria area to see if there are no serious side effects. Paludrine can be taken 2 days before entering the Malaria area. It is important to continue to take the medication during your stay and for four weeks after leaving the Malaria area. It is advisable to take the medication at night with food to reduce side effects like nausea. Melfloquin is an alternative to the Chloroquin / Paludrine combination and it is the drug of choice when visiting other areas such as Zim-



babwe and Mozambique if there are no contraindications for using Mefloquin. If the Chloroquine / Paludrine combination or Mefloquin cannot be used Doxycycline on a once daily basis can be taken after meals as a preventative drug. Please contact your general practitioner or chemist for the correct dosage according to age and weight. Discuss if any of the medications are contraindicated (i.e., in infants, young children, pregnancy, patients with psoriasis, porphyria or epilepsy). No effective [vaccine](#) currently exists, although efforts to develop one are ongoing. Several medications are available to prevent malaria in travellers to malaria-endemic countries ([prophylaxis](#)). A variety of [anti - malarial medications](#) are available. Severe malaria is treated with [intravenous](#) or [intramuscular quinine](#) or, since the mid-2000s, the [artemisinin](#) derivative [artesunate](#), which is superior to quinine in both children and adults and is given in combination with a second anti-malarial such as [mefloquine](#). [Resistance](#) has developed to several antimalarial drugs; for example, [chloroquine](#)-resistant *P. falciparum* has spread to most malarial areas, and emerging resistance to artemisinin has become a problem.



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## Malaria in pregnancy, infants, small children and other special cases:

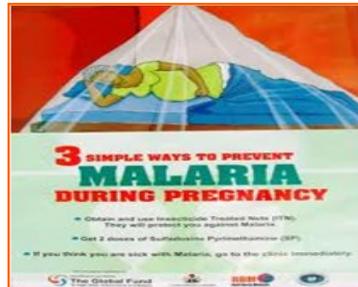
Despite the fact that the South African National Department of Health recommends that pregnant women should preferably not visit a Malaria area, many pregnant women do visit a Malaria area and even live in the Kruger National Park. Extra care for preventing mosquito bites should be taken as Malaria in pregnancy holds an increase in risk for both mother and child. It is safe to use Chloroquin and Paludrine in pregnancy, even in the first three months of pregnancy. Mefloquin and Doxycycline must not be used in pregnancy, because Malaria has a faster and harsher effect in infants and small children, extra care should be taken to prevent mosquito bites. Take chloroquin syrup weekly and paludrine tablets daily in dosages according to age and weight - the appropriate dosage can be obtained from your general practitioner or chemist. Drug transfer in breast milk is insignificant and infants require full preventative medication.

It is important to take the medication during and for four weeks after leaving the Malaria area.

The following people should, if possible avoid visiting Malaria areas - or should take extra care in preventing mosquito bites:

- Cancer patients on chemotherapy
- Persons on long term steroid therapy
- Persons whose spleen have been removed
- Persons with full blown Aids - it is not recommended for an HIV positive person to visit a Malaria area.
- People suffering from porphyria must not use Doxycycline. In this case, the combination of Chloroquin and Paludrine is probably safe to use.
- The safety of Mefloquine in porphyria has not been established. People with epilepsy should take care when using Chloroquin. Mefloquin is contraindicated in epilepsy.
- Pilots and mountaineers should not take Mefloquin as it could impair balance.

A 24-hour malaria hotline is available on **+27 (0) 82 234 1800**



*Please  
be care-  
ful when  
visiting  
our  
beautiful  
country!*