

# AFRICA

## 1 Country information

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There is a substantial risk of malaria in Africa south of the Sahara (unless stated otherwise). For the protective measures see NOTE 2 (unless stated otherwise).

See also: <http://www.mar.org.za> → maps → information on maps

### 1.1 North africa

**There is no risk of malaria** and no preventive measures are necessary in **ALGERIA** (there is an extremely limited malaria risk due to *Plasmodium vivax*, especially in a remote, isolated, hard to reach locality in Ihrir, in the Illizi Province), nor in **MOROCCO** (there is an extremely limited malaria risk in a few remote, isolated, hard to reach localities in the provinces of Al Hoceima, Taounate and Taza), nor in **LIBYA**, **TUNISIA** and the **WESTERN SAHARA**. In **EGYPT** there is no longer any risk of malaria for tourists and travellers. There is only an extremely limited risk of malaria in the Sennoris district in the El Faiyûm region, from June to October. For people spending the night in primitive conditions in the El Faiyûm region the standard precautionary measures against mosquito bites in the evening and at night are sufficient.

### 1.2 West and Central Africa, including Congo (Kinshasa)

Angola, Benin, Burkina Faso, Central African Republic, Cameroon, Chad, Congo-Brazzaville, Congo-Kinshasa (ex-Zaire), Equatorial Guinea, Gabon, Gambia, Ghana, Guinea (Conakry), Guinea Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo.

**Mauritania:** There is no risk of malaria in the northern provinces: Dakhlet-Nouadhibou and Tiris-Zemour. There is some malaria risk in the southern half of Mauritania, below the latitude of 20 degrees north, and in the province of Baie du Levrier. In the provinces of Adrar and Inchiri (situated between the northern and southern provinces) there is a malaria risk during the rainy season (from July to October). NOTES 2 or 3 are applicable.

### 1.3 Eastern Africa

Burundi, Comores, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mayotte, Mozambique, Uganda, Reunion, Rwanda, Sudan, Somalia, Tanzania (and Zanzibar and

Pemba), Zambia, Zimbabwe

**Eritrea, Ethiopia:** No risk at altitudes above 2000 m, hence also no risk in the capital cities.

**Kenya:** There is no risk in Nairobi. There is a substantial risk in all areas below 1500 m, and the risk is low (but not completely absent) above 1500 m. There is no risk in the high areas above 2500 m in the following provinces: Central, Rift Valley, Eastern, Nyanza and Western Provinces. Most travellers and tourists will, however, pass through a number of regions and will therefore have to take precautionary measures to protect themselves against malaria.

**Malawi:** Although there is a risk throughout the whole year and covering the entire country (according to the World Health Organization (WHO)), it is greatest from November to April in the areas below 500-1000 m along Lake Malawi.

**Sudan:** The risk is low in the northern part of the country. It is higher along the Nile south of Lake Nasser and is very limited on the Red Sea coast. There is substantial risk of malaria in the central and southern part of the country.

**Tanzania:** Malaria risk only below 1800 m. Most travellers will, however, pass through several regions and have to take precautionary measures to protect themselves against malaria.

**Zimbabwe:** There is risk of malaria throughout the whole year in the areas below 600 m (including the Zambezi valley and Victoria Falls). There is a risk of malaria from November to June in the areas up to 600-1200 m high. There is no risk in the cities of Harare and Bulawayo, nor on the high plateau between these two towns. For trips lasting a few days (with at most a few nights) in the region of the Victoria Falls, chemoprophylaxis may not be necessary, provided you stay in luxury hotels and measures are taken to ensure prevention of mosquito bites (certainly in the case of a night-time safari or an early morning walk). Most travellers will, however, pass through a number of regions and therefore have to take tablets to protect themselves against malaria.

#### **1.4 Southern part of Africa**

**Botswana:** Risk of malaria from November to June in the northern border provinces, north of the 21° south latitude, (especially in the districts/subdistricts: Boteti, Chobe, Ngamiland, Okavango, Tutume). Travellers to Maun (Okavango delta) are at risk. No risk of malaria in other areas. NOTE 2 is applicable.

**Lesotho:** No malaria risk.

**Namibia:** There is some risk of malaria: in the north along a narrow strip on the border with Angola; throughout the whole year along the Kavango and Kunene rivers; from November to May/June in the Northern Provinces (Ovambo and Caprivi); in Omaheke and Otjozondjupa. Both NOTES 2 and 3 may be applicable.

**Swaziland:** There is some risk of malaria in the low-lying areas in the eastern half of the country, especially in Big Bend, Mhlme, Simunye and Tshaneni.

**South Africa:** no risk in most of the country. There is a risk of malaria in the dry savanna areas (away from the big towns) in the extreme north and north-east of the country on the border with Botswana, Zimbabwe and Mozambique: this is in the low-lying regions in the Northern Province, in the north-eastern part of Transvaal (now known as Mpumalanga Province and includes Krüger National Park), and the north-eastern part of KwaZulu/Natal (as far as the Tugela River south of the town of Richard's Bay). Both NOTES 2 and 3 apply from October to May. On trips with a few days' excursion (with at most 4 nights) in the aforesaid areas, chemoprophylaxis may not be necessary, provided good hotels are used and precautionary measures are taken against mosquito bites (certainly in the case of a night-time safari or an early morning walk). [http://www.malaria.org.za/Malaria\\_Risk/Risk\\_Maps/risk\\_maps.htm](http://www.malaria.org.za/Malaria_Risk/Risk_Maps/risk_maps.htm)

## 1.5 Islands

No precautionary measures are necessary ON THE FOLLOWING ISLANDS

**Azores, Madeira, Canary Islands, Reunion, Seychelles, Saint Helena, Cape Verde Islands** (there is a very limited risk from September to November on Sao Tiago Island), **Mauritius** (there is some risk of malaria only in a few low-lying rural areas: Nivaquine (NOTE 1) is advised only if the night is spent in primitive conditions in these areas; there is no risk on **Rodriguez Island**).

## 2 Prevention of malaria

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To be optimally protected against malaria, it is essential to take protective measures against mosquito bites in the evening and at night. When on adventure trips with overnight stays in primitive conditions the best thing that can be done is to impregnate the mosquito net with permethrine or deltamethrine, mosquito-repellent and mosquitocidal substances. Taking antimalaria tablets is necessary.

#### NOTE 1

**NIVAQUINE**, 3 tablets per week, in one dose (e.g. with Sunday breakfast).

Begin one week before departure, continue administration until 4 weeks after returning home.

#### NOTE 2

**LARIAM** 1 tablet once per week is the first-choice medication, unless the doctor is of the opinion that there are contraindications (wanting a pregnancy, first three months of pregnancy, epilepsy, depression, or cardiac rhythm disorders for which certain medications such as beta-blockers, calcium antagonists or digitalis are being taken) or if you did not tolerate this medicine on an earlier occasion. You start this medication at least 1 week before departure, but if there is sufficient time, and certainly if you have never taken the medication before, it is better for you to start 2 to 3 weeks before departure (in order to discover any side effects such as dizziness, insomnia, nightmares, excitation, inexplicable anxiety, cardiac palpitations, etc). You should continue taking the medication until 4 weeks after returning home. If Lariam is tolerated well, it can if necessary be taken for many months and even years. For a trip of at most 4 weeks, **MALARONE** 1 tablet per day from 1 day before departure to 7 days after returning home is also an excellent but expensive choice. If there are any contraindications to this, DOXYCYCLINE, 1 tablet per day (NOTE 4) is an alternative; otherwise the combination of NIVAQUINE and PALUDRINE can be considered (NOTE 3), though in this situation this combination is often significantly less effective to rather ineffective. All this should be individually discussed with your doctor or with the doctor at the travel advice centre.

#### NOTE 3

**NIVAQUINE**, 1 tablet per day, every day of the week, together with **PALUDRINE**, 2 tablets per day taken in one dose or 1 tablet each morning and one each evening. You start this scheme from 1 week before departure, and continue until 4 weeks after returning home. Persons who stay for a long time in a malaria region should in certain cases also have a full treatment for a malaria attack to hand. All this should be individually discussed with your doctor or the doctor at the specialised travel advice centre.

#### NOTE 4

DOXYCYCLINE (100 mg per day, starting the day before departure, and continuing until 4 weeks after returning home). Doxycycline must be taken while sitting down, with plenty of liquid or during a meal. Doxycycline can sometimes give rise to phototoxicity and fungal infections in the mouth or genitals. All this should be individually discussed with your doctor or with the doctor at the specialised travel advice centre.

### 3 Diarrhoea

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DIARRHOEA is a frequent travel problem. Even when travelling in good conditions, it cannot always be avoided. Some advice and the correct medications from the travel pharmacy are very useful. In any case consult the general text on traveller's diarrhoea, where the measures for preventing, and if necessary for correctly treating diarrhoea are discussed.

### 4 Vaccinations

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- YELLOW FEVER vaccination is required for all countries where yellow fever can occur (<http://www.who.int/ith/english/map1.htm>). Not all of these countries always demand this, though the measure – in addition to the protection that it offers – is also useful for avoiding any problems at border crossings or when in transit through another country. Vaccination is therefore necessary for: Angola, Benin, Burkina Faso, Burundi, Central African Republic, Cameroon, Cape Verde Islands, Chad, Congo-Brazzaville, Congo-Kinshasa, Ethiopia, Gabon, Gambia, Ghana, Equatorial Guinea, Guinea (Conakry), Guinea Bissau, Ivory Coast, Kenya, Liberia, Mali, Mauritania, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Zambia and Zanzibar.
- A number of countries where yellow fever does not occur require yellow fever vaccination only if travelling from or through any of the above-mentioned countries (hence not if arriving from Belgium):
- Algeria, Djibouti, Egypt, Lesotho, Libya, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Reunion, Seychelles, Saint Helena, Swaziland, Zimbabwe, South Africa.
- Going on a trip is also an ideal opportunity to get your TETANUS- DIPHTHERIA- and POLIOMYELITIS VACCINATIONS up to date. These infectious diseases are in any case totally preventable by means of vaccination. A revaccination is effective for ten years.
- The WHO advises anyone who is travelling to Africa, regardless of the duration and the conditions of the trip, to be protected against HEPATITIS A. Vaccination against hepatitis A is

always advised for people who (1) are travelling in not very good hygiene conditions, or who (2) stay abroad frequently or (3) for long periods (for example for more than 2 - 3 weeks), even if in good hygiene conditions. In these cases vaccination against TYPHOID is also advised. For further details see the general text on VACCINATIONS.

- In specific circumstances vaccination against HEPATITIS B, RABIES and MENINGOCOCCAL MENINGITIS should also be considered.