



# HOW TO TRAVEL AND STAY HEALTHY

Useful information for good health  
 before your departure, during your trip and after your return.

**Please read this booklet carefully and keep it  
 take it along on your trip**

travel medicine and vaccinations (without appointment) between 14.00 and 16.00  
 from Monday to Friday  
 consult the doctor 4 to 8 weeks in advance

Name: ..... Date of birth: ...../...../.....

**\*\*\* In order to facilitate the consultation, please complete this QUESTIONNAIRE. \*\*\***

**Completing pages 1 and 2 of the questionnaire will facilitate the consultation.**

- Which country(ies) will you be visiting? .....
- .....
- What is the date of departure? ...../...../..... Date of your return? ...../...../.....
- Or how long will you stay abroad? .....days or.....weeks or.....months or.....years
- Will you be travelling alone? **in a group?** with family? .....
- What kind of trip are your going to make? - business trip - family visit  
 - tourist trip - adventure trip - poor accommodations - living/working/training
- Special activities planned (diving, mountaineering, trekking) .....
- Have you ever travelled before?.....
- Do you intend to travel frequently in the future?.....

Health risks to travellers are closely related to the **country** of destination, the **duration** of stay, the **mode** of travel and **your health status**.

We consider four different ways of travelling:

1. Business trip or family visit: very comfortable, with good hygiene.
2. Tourist trip: well organized, very comfortable and confined to the classical sites.
3. Adventure trip: organized across isolated areas, low-budget hikers, “different travel”, long trips covering several countries ⇨ as a rule all trips lasting longer than 3 weeks; **also foreigners visiting their native country**.
4. Extended stay: work contracts of one or two years.

The doctor will give you advice in accordance with your own personal situation. It is therefore important to answer the following questions:

When were you last vaccinated against:

Yellow fever - never - less than 10 years ago - more than 10 years ago

Tetanus - never - less than 10 years ago - more than 10 years ago - more than 20 years ago

Diphtheria - never - less than 10 years ago - more than 10 years ago - more than 20 years ago

Polio - never - completely vaccinated during childhood - had a booster after the age of 16 years

Hepatitis A - never - 1 - 2 (3) booster(s)/ - latest booster on

Hepatitis B - never - 1 - 2 - 3 (4) booster(s)/ - latest booster on

Typhoid fever - never - less than 3 years ago - more than 3 years ago

Meningococci ACWY - never - less than 3 years ago - more than 3 years ago

Measles - never - 1 - 2 injections

- Have you ever had jaundice (hepatitis A)? Yes/no Have you ever had measles? Yes/no

- Did you ever faint or pass out during previous vaccinations? Yes/no

- Are you **allergic** to any drugs, vaccinations or any of their components, or to eggs? yes/no

(*allergic = generalised rash, swelling of mouth or throat, breathing problems*)

Which drugs / vaccine(s) : .....

- Are you **pregnant**? yes/no Do you take the pill? yes/no Do you breast-feed? yes/no Are you thinking of getting pregnant within three months after the trip? yes/no

- Are you taking **medications**? If so, which? .....

- to suppress the production of gastric acid?.....

- For the heart? For cardiopulmonary problems? For blood coagulation .....

- Antiepileptics? Antidepressants? Sedatives or sleeping tablets? .....

- Psoriasis, eczema? rheumatism? .....

- Corticosteroids? Other immuno-suppressive medication? .....

- Do you suffer from any chronic or serious illness? Has your spleen been removed? Do you have any thymus gland problems?

- Did you undergo an organ transplant? Are you HIV-seropositive?

- Do you suffer from depression, anxiety attacks or other serious mental problems?

- Do you (frequently) take any stimulants such as alcohol? Drugs?

The specific diseases most commonly seen in travellers are **diarrhoea**, fevers (**malaria** if you travel in a malaria-infested area), **dengue/chikungunya; influenza**), bronchitis, **accidents** (when travelling by car or swimming), **wound infections** and **sexually transmitted diseases**.

- **Diarrhoea** is caused by contaminated food & drinking water, dirty hands or dirty objects. For this reason you have to be careful when travelling in less hygienic circumstances.

- **Malaria** and **Dengue/Chikungunya** are transmitted by mosquitoes. In the first place you need to protect yourself against mosquito bites (in the evening, at night and in the early hours against malaria; during the day against dengue & chikungunya).
- The same measures to prevent **accidents** at home should also be followed when travelling.
- Contraceptives are essential in case of **sexual contact with new partners** (locals or fellow travellers).
- Every **injury** must be disinfected to prevent **infections**.

## TRAVELLER'S DIARRHOEA

Many intestinal infections are attributable to infections through food, water, objects or hands. With a little care most of these illnesses can be prevented. **Hepatitis A, typhoid fever, polio** and **cholera** still occur in countries with poor hygiene, but these diseases are easily prevented.

However, the chance is rather large that you will still contract a light and/or nondangerous form of **traveller's diarrhoea**. Traveller's diarrhoea almost always spontaneously clears up after a few days, but can nevertheless be irritating. Persons taking gastric acid inhibitor or having reduced/stopped production of gastric acid due to a surgical operation are more susceptible to serious diarrhoea.

In the first place measures must be taken against dehydration. Likewise, treatment of the symptoms must be considered in order to reduce the number of bowel movements and relieve other symptoms such as fever, vomiting and stomach cramps. Sometimes a more serious form of diarrhoea occurs, for which specific treatment with antibiotics is indicated or where hospitalisation or fluid replacement appears unavoidable.

**It takes only a few basic preventive measures to make your trip a success:**

Total prevention of traveller's diarrhoea is impossible and it is obvious that preventive measures can seldom be strictly followed at all times. But following preventive measures do significantly reduce the risk of contracting serious diarrhoea:

- Before cooking, eating and after using the lavatory: **hand washing** with water and soap or disinfectant alcoholic gels (hydro-alcoholic solutions) in special dispensers.
- **“Cook it, boil it, peel it or forget it!”** Avoid (if possible):
  - uncooked vegetables and cold salads, uncooked or raw food in general;
  - fruit that cannot be peeled by yourself before eating; damaged fruit;
  - unpasteurized or unboiled dairy products or food based on unpasteurized or unboiled dairy products (pudding, ice cream; coffee cream, etc.);
  - dishes based on raw or insufficiently boiled eggs;
  - raw or insufficiently cooked fish, and especially seafoods such as oysters;
  - raw or insufficiently cooked meat;
  - boiled dishes that are left for hours on room temperature (only eat food that is thoroughly cooked and still warm);
  - “local meals” which do not smell fresh; contaminated food can however look, smell and taste perfectly normal
  - ice-cream from vendors (industrially prepared and factory packed ice-cream from the freezer is probably safe).
- The place where you eat is also important. A meal taken from a stall presents a greater risk than a meal taken in a restaurant. Avoid restaurants where there are a lot of flies and other insects.
- Avoid tap water and ice-cubes. Bottled water and soft drinks are safe. Watch out for bottle caps that have already been used. In some countries it is usual to add unboiled cold water to hot tea or coffee before serving. It is very important to disinfect drinking-water on adventure trips.

Total sterilisation of drinking water is impossible.

The following measures considerably reduce the contamination risk:

- Boiling the water is very effective.
- A good alternative is chemical disinfection with chlorine drops (e.g. Hadex<sup>®</sup>, Drinkwell chloor<sup>®</sup>; available in sport shops specialized in outdoor activities) or chlorine tablets (Micropur Forte<sup>®</sup> = chlorine and silver tablets, available at the pharmacy). Their effect can be improved by first filtering unclear water. (a coffee filter or other clean handkerchief can be used). Silver salts (Micropur Classic<sup>®</sup>) are not very suitable to disinfect water, but they keep disinfected water germ-free for a long time.

- For adventurous travellers it is best to buy a portable water-filter.

**It is however important to be aware that preventive use of antibiotics and other medications is not advisable! A prompt self-treatment is after all an excellent alternative.**

### How to treat diarrhoea?

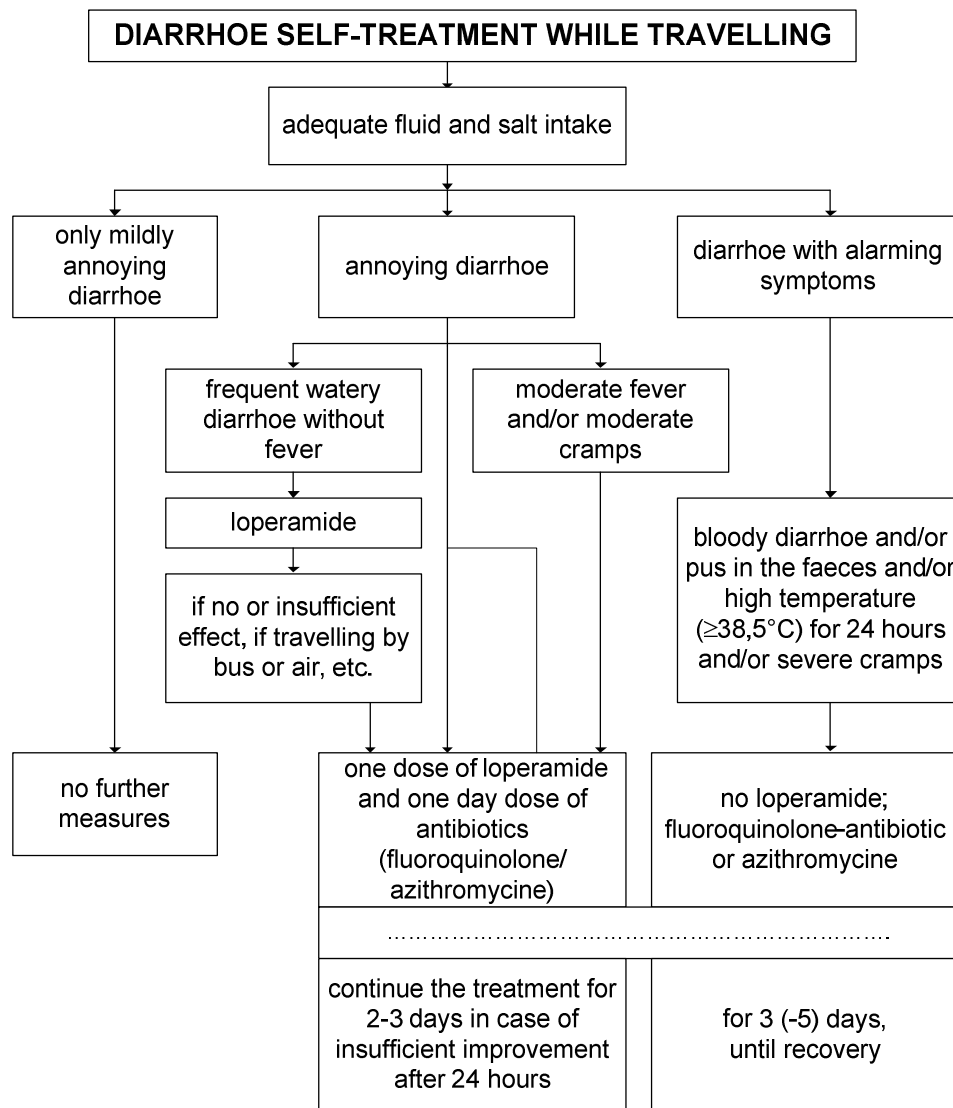
- It is extremely important **to consume sufficient liquid and salt in order to prevent dehydration**. You can do this by taking salt solutions, but tea with lemon, broth, soft drinks and fruit juice, supplemented with salt crackers are tastier.  
Commercial salt products are available on the market (**ORS-solution**).
- Taking an anti-diarrhoea preparation (loperamide, e.g. Imodium<sup>®</sup>) can greatly reduce the number of bowel movements, with a considerable reduction of the complaints as a result. Loperamide may only be used by adults and older children and only for treating ordinary watery diarrhoea: 1 capsule or instant tablet after every loose movement up to a maximum of 4 per day. One has to stop the administration as soon as the faeces become more solid in order to avoid constipation. Further administration is not useful when there is no clear improvement after 4 capsules; then the administration of antibiotics (see schedule – point 3) may be considered.
- Antibiotics are indicated (**see schedule**):
  1. If blood, mucus or pus are present in the stools (start immediately)
  2. In persons suffering from primary or secondary immunosuppression and in people who don't produce stomach acid (e.g. patients on proton pump inhibitors or acid antagonists) (start immediately)
  3. If after 24 to 48 hours, there is no sign of improvement and the diarrhoea is accompanied by fever (above 38.5 C) or severe abdominal cramps, or if there are more than six stools per 24 hours.
  4. Or if because of travel circumstances a quicker solution is desirable.

### Appropriate antibiotics (only on doctor's prescription) are:

- 1) Fluoroquinolone-antibiotic: ofloxacin 400 generic/Tarivid 400<sup>®</sup> 1 tablet per day OR ciprofloxacin 500 generic/Ciproxine 500<sup>®</sup>, ofloxacin 200 generic/Tarivid 200<sup>®</sup>, norfloxacin generic/Zoroxin<sup>®</sup> 1 tablet in the morning and 1 tablet at night for *1 to 3 days* for uncomplicated watery diarrhoea (in case of pure watery diarrhoea, the treatment may be stopped as soon as the symptoms have disappeared) or *3 to 5 days* in case of serious symptoms (see schedule). Avoid sunlight.
- 2) Zitromax<sup>®</sup> (azithromycin): 500 mg per day for *1-3 days*, (= 1 day treatment suffices mostly). Azithromycin is the first choice when travelling to Asia. Allowed for pregnant women.
- 3) **Children and adolescents under 15 years old:** A reliable physician should be consulted, but this is not always possible on a journey.

Rehydration is the cornerstone of the treatment. In children Azithromycin is administered at a dose of 10 mg/kg/day for *1-3 days* (a syrup form exists). (Bactrim<sup>®</sup> and Eusaprim<sup>®</sup> are no longer recommended, because they frequently have become ineffective).

Schematic:



This scheme is **only** for emergency use when travelling. Do **not** use it when you get back home, but always consult your doctor!  
Keep the **antibiotics** safely and use them only as an emergency treatment during your next long journey. Check the expiry date; an expired product must be returned to the pharmacy.

### SEXUALLY TRANSMITTED DISEASES

Casual sexual contacts tend to be higher while on holiday abroad. Sexually transmitted diseases, particularly AIDS, form therefore **an important risk** for travellers. Quite often unintentional and unsafe sexual contact takes place under alcohol influence. Studies show that mainly people travelling without partner are at risk; many of the unsafe sexual contacts were unscheduled beforehand. Prevention while on holiday abroad is no different from the precautions you take at home. Adequate use of a **condom**, preferably bought at home, is absolutely essential. Only a water-soluble lubricant should be used, but it only offers a partial guarantee (e.g. KY gel). Vaccination against **hepatitis B** is advised.

Always consult your doctor if you think you are at risk, even when there are no symptoms.

See: [www.itg.be](http://www.itg.be) or [www.travelhealth.be](http://www.travelhealth.be)

## VACCINE - PREVENTABLE DISEASES!!

Preferably start 6 weeks before departure

**Keep a photocopy of your official "yellow vaccination booklet" at home!!**

**THE PRICES OF THE VACCINES CAN BE SUBJECT TO UNEXPECTED FLUCTUATIONS!**

### **1. YELLOW FEVER** ([www.who.int/ith](http://www.who.int/ith)) – disease distribution maps

This deadly viral infection – transmitted by mosquitoes that bite during day time - occurs only in some countries of South-America and Africa. There is no medication against yellow fever, but there is a very effective vaccine that is well tolerated. One injection in the arm – (price € 20.00) offers a 100 % protection for ten years. This protection only begins 10 days after vaccination if this is the first vaccination. In 10 to 30 p.c. of the cases a slight influenza-like reaction may occur after a few days or up to a week after vaccination (take paracetamol if this happens). Allergic reactions are very rare. However, during the last years life-threatening side effects have been reported very exceptionally and only at the first vaccination and in persons over 60 years old. The doctor will weigh the advantages against the (extremeley) rare disadvantages of the vaccination in persons of 60 years or older taking into account the destination and circumstances of their trip. (“The risk for a non-vaccinated person travelling to a country where yellow fever occurs, is mostly much higher than the risk of having side effects of the injection. It is important to vaccinate all travellers who could run risk.” WHO 2010)

It is the only disease for which a certificate (“yellow booklet”) is required of the traveller going to or coming from areas in which yellow fever occurs (see map on [www.itg.be](http://www.itg.be)). A vaccination can only be obtained in vaccination centres that are recognised by the National Administration of Public Health. Children are vaccinated from the age of one, in exceptional cases from the age of 6 months. The vaccine is usually not administered to pregnant women nor to immunosuppressive people (HIV, corticosteroids, other immunosuppressive medications, etc.): for them it is not recommended to travel to countries endemic to yellow fever (without being vaccinated). People who have undergone a thymectomy or have other thymus problems should not be vaccinated. In case Yellow Fever vaccination is contra-indicated, it may be wise to recommend a change in destination. If necessary a declaration of “temporarily medical exemption of vaccination” can be given in the specialized vaccination centre (in which case it is very important to apply the measures against mosquito bites during daytime).

### **2. TETANUS, DIPHTHERIA, PERTUSSIS**

Travel preparations are an ideal time to update your tetanus and diphtheria vaccinations. For most people and certainly for young people, a booster every ten years is sufficient (Tedivax pro Adulto<sup>®</sup> € 8,03 ). If the last injection dates back to over 20 years, two injections with an interval of 6 months are recommended. If there are any doubts as to the completeness of the earlier vaccination, the schedule consists of two injections with a 1-month interval, followed by a third injection after 6 – 12 months.

It is advisable for adults, in close contact with infants, to get one injection with the combined vaccine against tetanus, diphtheria and pertussis (Boostrix<sup>®</sup>).

### **3. POLIO** <http://www.polioeradication.org/content/general/casemap.gif> or [www.who.int/ith](http://www.who.int/ith) (disease distribution maps)

Since 1965 every Belgian citizen has been vaccinated against polio (using an oral vaccine (Sabin<sup>®</sup>), since 2001 and injection). In most cases the vaccination ensures lifelong protection. As the virus is still prevalent in certain parts of Africa and Asia, a booster vaccination against polio is advisable, even for a short trip to the tropics. One subsequent booster injection from the age of 16 years alone is sufficient to protect for life if a complete vaccination cycle had been given before. If one has never been vaccinated before: 2 injections with a 2 month interval, and a third injection after 12 months.

There are two types of vaccine: (in Belgium the oral vaccine Sabin<sup>®</sup> is not used anymore).

<u>Imovax<sup>®</sup></u> Polio injection € 7.34 – Vaccine against polio	<u>Revaxis<sup>®</sup></u> injection € 17.20 – combination vaccine against tetanus, diphtheria and polio – not for children under 7 years
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**4. MEASLES** Vaccination is recommended for non-vaccinated persons born after 1970 who did not have a measles infection yet, 2 injections with the measles-mumps-rubella vaccine, with a minimum interval of 1 month.

**5. HEPATITIS A (JAUNDICE)** [www.who.int](http://www.who.int) - disease distribution maps

Hepatitis A is a contagious liver disease that is transmitted through food, drinks, or objects that have been contaminated either directly or indirectly with faeces. Although hepatitis A is usually quite a mild disease, its evolution can sometimes be very slow.

The risk of infection in industrialised countries remains very low because of the high level of hygiene. In developing countries the risk of infection is high.

Hepatitis A vaccination is recommended by the WHO for travellers to Africa, Latin America and Asia. Individuals who have had the disease acquire a lifelong immunity and thus do not need vaccination. (This should be confirmed by a laboratory test). Antibody screening after vaccination is only indicated in case of reduced immunity.

Epaxal<sup>®</sup>, Havrix<sup>®</sup>:

- 14 days after one injection there is nearly 100% protection for at least one year
- a 2<sup>o</sup> injection after 6 to 12 months will give a **lifelong** protection
- When there is a long delay (even of several years) the course does not have to start again from zero. The next injections can be carried on according to the plan i.e. at the point where they left off.
- the price **per dose** : Epaxal<sup>®</sup> 39,58 € (from the age of 1 year); Havrix<sup>®</sup> € 45.66 (adults) and Havrix Junior<sup>®</sup> € 30.04 (1-15 years) (**2x**), these vaccines can be used together in one vaccination scheme

If vaccination against **Hepatitis B** is recommended (see below), a combination vaccine is used (Twinrix<sup>®</sup>: 3 injections: adults € 54.60 per dose, children up to 15 years € 41.05 per dose); as Twinrix<sup>®</sup> only has ½ of the hepatitis A vaccine dose, protection against hepatitis A for at least 1 year occurs only after 2 doses of Twinrix<sup>®</sup>.

## **6. TYPHOID FEVER**

Typhoid fever is a serious infection accompanied by high fever; in the early stages rarely accompanied by diarrhoea. Its transmission occurs through the intake of contaminated food or water. Again, strict precautionary measures in order to prevent diarrhoea are important. The risk of infection is fairly low (and much lower than the risk of a hepatitis A infection), the risk is highest in Northern and Northwestern Africa, India and Peru. Vaccination protects about 60-70% for three years and is recommended for journeys to the tropics longer than 3 weeks or for adventure journeys, even if less than 3 weeks. Two types of vaccines exist:

Vivotif<sup>®</sup>

- 3 capsules, each to be taken at intervals of exactly 48 hours for three doses. The capsules have to be taken on an empty stomach.
- to be taken two weeks before departure.
- Not to be taken together with antibiotics or some kinds of antimalaria drugs; not suitable for pregnant women.
- € 17.85, keep in a cool place! Do not open or dissolve capsules!

Typherix<sup>®</sup>/Typhim Vi<sup>®</sup>

- a single injection that is tolerated very well.
- vaccination two weeks before departure
- price: € 22.36

## **7. CHOLERA**

Cholera is characterised by frequent watery stools which may cause rapid dehydration. Cholera is a disease, which affects deprived people living in poor hygienic conditions and who are usually suffering from malnutrition. The old, injectable vaccine against cholera was of little efficacy and a frequent source of side effects; the more recent, drinkable vaccine is much better tolerated and of greater efficiency. However, for the healthy traveller who applies the preventive measures for diarrhoea mentioned above, the risk is as good as almost completely non-existent, even when travelling in an area where a cholera epidemic is occurring.

Some African countries still require a vaccination certificate. In order to avoid problems at frontier borders, an extra stamp (“cholera vaccination not indicated; unlimited time”) may be useful here. It can be provided by your doctor when necessary. [www.who.int/ith](http://www.who.int/ith) (disease distribution maps)

## **8. HEPATITIS B** [www.who.int/ith](http://www.who.int/ith) (disease distribution maps)

(Engerix<sup>®</sup>B, HBVAXPRO<sup>®</sup> : € 26,55 /dose, children up to 15 years € 16,81 /dose, 3 injections, on day 1-30-120 to 180, or 4 injections on day 1-7-21-360)

(Twinrix<sup>®</sup>: 3 injections: adults € 54.60 per dose, children up to 15 years - € 41.05 per dose). When there is a long delay (even of several years) the course does not have to start again from zero.

The next injections can be carried on according to the plan i.e. at the point where they left off. In principle a lifelong protection after a full vaccination is possible, though a check-up of antibody titre after 10 years is recommended.

Vaccination is recommended: (1) For people who frequently travel to Asia, Latin America and Africa, or stay there longer than 3-6 months, also for children who will be staying there, migrants and their children visiting their country of origin (“VFR travellers”: visiting friends and relatives) **N.B.** there is also a risk for contamination when taking care of adopted children, orphans or street children, even when the hygienic standard of living is high during the whole stay (infection through direct or indirect contact with mucous membrane, eye membrane and skin lesions); (2) For travellers <sup>(a)</sup> who may have sexual contacts, acupuncture, piercing or tattoos’ <sup>(b)</sup> may have to undergo medical or dental operations abroad, <sup>(c)</sup> also the adventurous traveller or the traveller who will practise dangerous sports activities, who are at risk of trauma and medical care in a hospital in poor hygienic conditions; (3) In Belgium Hepatitis B vaccination is <sup>(a)</sup> strongly recommended (if not mandatory) to people that are at risk through their profession; and recently <sup>(b)</sup> it has also become part of the basic vaccination schedule for infants, children and adolescents. Antibody screening 1-3 months after the **complete** vaccination series is advisable for adults; the presence of (at least 10 IE/ml) antibodies implicates a life long protection for persons with a normal immunity; this will be obtained in 90-95 % with 1 vaccination series. Every injection counts, even if there were several months or years between the different injections, one does never has to restart the entire vaccination series.

**9. MENINGITIS CAUSED BY MENINGOCOCCI A,C,W,Y** (Mencevax<sup>®</sup> A-C-Y-W135, € 32,99; 1 injection, booster every 3 years – Menveo<sup>®</sup>, € 50,00; 1 injection, it is not yet clear when a booster vaccination is required (for the moment the US advises after 3-5 years, but probably the protection lasts longer)). Vaccination is indicated for travellers going to countries in the African sub-Saharan belt during the epidemic meningitis period, who will be living in close contact with the local population (i.e. travelling by public transport, sleeping in local guesthouses, migrants who are travelling to their country of origin and who will be staying there with family members), or who will be staying there for more than 4 weeks. Vaccination is mandatory for pilgrims to Mecca (should be administered ten days before departure).

For more information, see [www.itg.be](http://www.itg.be) – [www.travelhealth.be](http://www.travelhealth.be).

**10. RABIES** (3 injections: on day 1-7-21/28 (3 x 30-40 €), one booster 1 year after the start of the basic vaccination scheme; a supplementary vaccination is needed when being bitten (2 injections: day 1 & 3).

For more information: see [www.itg.be](http://www.itg.be) – [www.travelhealth.be](http://www.travelhealth.be).

**11. Japanese Encephalitis (Far East)** (vaccine “Ixiaro<sup>®</sup>”: € 83,28 x 2, on day 1 & 28; booster after 12-24 months, later boosters not yet determined). The same protective measures against mosquito bites for malaria are an effective alternative! For more information: see [www.itg.be](http://www.itg.be) – [www.travelhealth.be](http://www.travelhealth.be).

**12. European tick-borne Encephalitis (FSME, TBE)** (€ 34.5; 3X), **FSME-junior** (€ 29,64 x 3). For more information concerning this vaccination and to avoid tick bites, see [www.itg.be](http://www.itg.be) – [www.travelhealth.be](http://www.travelhealth.be).

**13.** If necessary: (booster) **Influenza**; **Pneumococcal**; in exceptional cases: TB (BCG)

## **MALARIA (swamp fever, malaria)**

Malaria is an infectious disease caused by a parasite (called *Plasmodium*) transmitted by the bite of the *Anopheles* mosquito. There are four different types of which Malaria falciparum is the most dangerous and the most widespread. The incubation period – the time between an infecting bite and the appearance of the disease – varies from ten days to four weeks (rarely several months).

The symptoms include attacks of fever, but can initially be quite similar to influenza. If adequate treatment is not started in time, an attack may sometimes result in death within a few days.

**Where does malaria occur? Map:** [www.who.int/ith](http://www.who.int/ith) –disease distribution maps

Malaria only occurs in those areas in which *Anopheles* mosquitoes are present: in the tropics and in a large number of subtropical areas. From a height of 1.500 to 2.500 m onwards, depending on temperature and climate, *Anopheles* mosquitoes are either rare or non-existent. In most big cities there is little or no risk at all of infection,

except in Africa where a real risk exists. Risk also exists in the suburbs of the big cities in Asia (e.g. in India). In a number of areas the risk varies strongly according to the season.

**How can malaria be prevented?**

- **It is very important to avoid mosquito bites:** the *Anopheles* mosquito only bites between dusk and dawn, is rather small and hardly makes any noise.
- ⇒ In the evening wear light-coloured clothing which covers your arms and legs as much as possible. Apply repellent cream with a DEET basis (20 to 50%, for children and pregnant women preferably 20 to 30%) to the uncovered parts of your body e.g. Care-Plus® DEET, Moustimug®, Z-stop®, Anti-M®, OTC-repellent® etc. and repeat this every four to six hours (DEET 20-30% only gives protection for 4 to 6 hours, a higher percentage of DEET 40-50% will protect for 8 hours- **it will most often not protect you all night long!**). Non DEET containing repellents were less examined; products based on the citrodiol extracts of eucalyptus oil (Care-Plus® Natural, Mosegor®/Mosiguard®), picaridine (Care-Plus® Repel-it; Parazeet) and “IR3535” (has no long action against the Anopheles mosquito) are however excellent safe products. Sleep in rooms that leave no access to mosquitoes, (mosquito nets on the sills, electrically-warmed anti-mosquito plates, airco does not always hamper mosquitos from biting) or sleep under a mosquito net impregnated with permethrine or deltamethrine hung over the bed with the edges tucked under the mattress. If these measures are carried out correctly, the risk of malaria will be reduced by 80 to 90%.
- **The intake of pills as prevention:** There is no drug efficient enough to prevent malaria 100%, which means that quite often a combination of measures is preferable. Also the drugs used have changed over the years. Moreover, the advantages and disadvantages of drugs should be considered against the risk of malaria infection. These risks are dependent on the visited country, and on the region, the season, the duration of your stay and the kind of trip (see [www.itg.be](http://www.itg.be)). Some people might be troubled by the side effects while taking antimalarial drugs. These are usually mild and are not always a reason to stop taking the pills. Sometimes it may be necessary to change to another type of medication due to intestinal problems, allergic reactions or other intolerance symptoms. **Therefore it is the doctor who can best decide for each individual which drug to use.** This explains why individuals from the same group may end up taking different drugs.

**For areas with resistance against chloroquine or fansidar: (ZONE C on the malaria map)**

<p><b>MALARONE®:</b> for an adult: <b>1 tablet daily, starting 1 day before arrival in the malaria risk area until 7 days</b> after leaving risk area. Malarone® should be taken preferably <b>during a meal</b> or with milk, every day at the same time. It may be taken for several months (=much longer than the 4 weeks stated in the product leaflet; but keep the high price in consideration). Malarone® can be given to children from 5 kg, in an adapted dose. Malarone® should not be given to pregnant women or breast feeding women.  <b>Efficiency of &gt; 95 %.</b></p>			
<p><b>DOXYCYCLINE:</b> for an adult <b>1 tablet</b> of 100 mg or ½ tablet of 200 mg <b>daily, 1 day before arrival in the malaria risk area until 4 weeks</b> after leaving risk area; doxycycline should be taken with plenty of liquid or during a meal, every day at the same time. May be taken for several months. Doxycycline must not be given to children &lt; 8 years or pregnant women. Doxycycline can sometimes cause fungal infections of the mouth and the genitals and may give rise to phototoxic rash (sun allergy).  <b>Efficiency of &gt; 95 %.</b></p>			
<p><b>LARIAM®:</b> <b>1 tablet per week, on a fixed day, during the evening meal, until 4 weeks after return</b> or after leaving risk area. Lariam® is not given to children who weigh less than 5 kg. Lariam® can be given to pregnant women from the second trimester of their pregnancy on. Only in well-defined, specific situations can the drug be taken from the first trimester of pregnancy.  <b>Efficiency of &gt; 95 %</b> (less effective in some isolated areas of Thailand, Myanmar and Cambodia).</p>			
<p><b>1. CONTRAINDICATIONS</b> to be discussed with the doctor</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>- depression, psychiatric problems, episodes of anxiety</li> <li>- epilepsy</li> <li>- heart arrhythmia's</li> </ul> </td> <td style="vertical-align: top; padding-left: 20px;"> <ul style="list-style-type: none"> <li>- previous intake not well tolerated</li> <li>- pregnancy (or planned) or during the first trimester of pregnancy</li> </ul> </td> </tr> </table>		<ul style="list-style-type: none"> <li>- depression, psychiatric problems, episodes of anxiety</li> <li>- epilepsy</li> <li>- heart arrhythmia's</li> </ul>	<ul style="list-style-type: none"> <li>- previous intake not well tolerated</li> <li>- pregnancy (or planned) or during the first trimester of pregnancy</li> </ul>
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<b>2. START : 3 tablets should be taken before departure</b>		
If <u>never taken previously</u> and sufficient time before departure :	Classic	If <u>taken previously</u> and well tolerated and no time before departure, <u>only</u> in case of high malaria risk
“ <b>Test tolerance</b> ” : = 1 tablet per week 2-3 weeks before departure = <b>at least 3 tablets before departure</b>	Take 1 tablet per week, at least 2 week(s) before departure <b>or</b> take 1 tablet per day during <b>2 days, at least 1 week before departure</b> ( <u>medication build up</u> ) and then 1 tablet per week	Take <b>1 tablet per day for 3 consecutive days just before departure</b> ( <u>medication build up</u> ), and then 1 tablet per week

<b>3. POSSIBLE SIDE EFFECTS</b>		
The majority of people can take Lariam <sup>®</sup> without any problem	Possible side effects : <b>SEVERE DIZZINESS, INSOMNIA, NIGHTMARES, HUNTED FEELING, SENSATION OF SHORTNESS OF BREATH, FROM UNUSUAL MOOD SWINGS TO DEPRESSION, DEPRESSIVE FEELINGS, INEXPLICABLE ANXIETY, HEADACHE, CARDIAC PALPITATIONS, and rarely GASTRO-INTESTINAL COMPLAINTS (75% of side effects appear after taking 3 tablets, 95% after 6 tablets; the risk of side effects decreases with the duration of tolerance; delayed side effects are possible and can be caused by stress, fatigue and/or insomnia.)</b>	Extremely rare : epilepsy, hallucination (1/10.000)
May be taken for many months and several years if necessary	Consider stopping Lariam <sup>®</sup> if too troublesome and switch to another schedule. If possible discuss this with an experienced doctor	Stop immediately and definitively

<b>4. ALTERNATIVES: during your stay</b> , you can switch overnight without any problem if necessary to:
<p><u>Malarone</u>: 1 tablet per day. When switching from a different prophylaxis to Malarone during or after a stay in a malaria region (or when one has forgotten to take 1 or 2 pills), Malarone should always be continued until <b>at least 4 weeks after the switch</b> – this means Malarone sometimes must be taken longer than the prescribed 7 days after leaving the malaria region:</p> <ul style="list-style-type: none"> <li>• <b>Switch</b> ≥ 3 weeks before departure: once daily for the rest of the stay - until 7 days after leaving the risk area</li> <li>• <b>Switch</b> &lt; 3 weeks before departure: once daily until <b>4 weeks</b> after the switch</li> <li>• <b>Switch</b> after departure (=after leaving the risk area); once daily for another <b>4 weeks</b></li> </ul> <p>Malarone has an efficiency of &gt; 95 % and can easily be used during several months (taking into consideration the high price).</p> <p><u>Doxycycline</u>: 1 tablet of 100 mg or ½ tab. of 200 mg /day, to be started 1 day before departure until 4 weeks after return), to be discussed with the doctor. Not for children under the age of 8 and pregnant women. Doxycycline should be taken in a sitting position, with plenty of liquid, or during the meal (ulcer in the oesophagus). Can cause fungal infections of the mouth and the genitals and photosensitivity (excessive skin reaction after sun exposure). Doxycycline is &gt; 95 % effective and can be taken for several months.</p>

NB. The combination of Nivaquine and Paludrine is no longer used (Paludrine is no longer available; this combination is insufficiently effective).

These medications are only available on doctor's prescription.

In case of fever during or after a stay in the tropics, you must seek competent medical aid as quickly as possible.

Finally, as no drug is 100% effective in preventing malaria, it is important that **if an attack of fever occurs in the first three months after your return from the tropics, a malaria infection should be considered as a possibility** despite

the correct use of the drug prescribed. However, it is reassuring to know that malaria, provided it is recognised in time, is easy to treat without any danger of recurrent attacks. The belief that "once malaria always malaria" is totally untrue.

## SOME MORE TIPS

- ❑ Make sure you leave in good health. Pay a visit to your dentist for a dental check-up before leaving.
- ❑ Above-mentioned medication is only available on doctor's prescription.
- ❑ It is essential to take out a good travel assistance insurance.
- ❑ Information concerning the safety in the country of destination: <http://diplomatie.belgium.be> and <http://statbel.fgov.be>
- ❑ Pay attention to fluids in hand luggage – max 100 cc per bottle
- ❑ Safety criteria in traffic should not be any different from those at home (this certainly applies to the use of alcohol) and always use the seatbelt in the car (if present).
- ❑ Sunbaths should only be taken with moderation. Protective clothing and head covering are recommended. On the uncovered skin parts one should put regularly and abundantly sunscreen with a high protective factor.
- ❑ Problems that frequently occur with travellers in developing countries are wound infections and ulcers. Every wound, no matter how small, should be thoroughly washed and disinfected, followed by the application of a strong disinfectant cream.
- ❑ **Other issues** you may wish to discuss with your doctor are : travel sickness (car sickness, etc.), skin care, heat and sun exposure, bites and stings, problems related to air-travel : aero-otitis and aero-sinusitis, jet lag, deep venous thrombosis ("deep phlebitis"), pain and swelling in leg in the days (even weeks) following long-distance flight, altitude, problems of altitude sickness, contraception, diving, travelling with children, travelling when pregnant, travelling with chronic illness, intake of immunosuppressive medication.
- ❑ **Dengue & Chikungunya**. Dengue fever is quite common in Latin America and Asia, less in Africa; the last years Chikungunya epidemics also emerge in Asia. These are viral infections transmitted by mosquitoes which are active in the day time. Both diseases are characterised by fever and violent muscle pains; Chikungunya fever is characterised by arthritis. Dramatic evolution with blood pressure fall and haemorrhages very seldom occur in Dengue fever, but when treated correctly, the outcome will practically always be favourable. There is no vaccine nor effective medication available. Recovery is most often spontaneous and quick, but long sequels are possible. Paracetamol is the drug of choice to reduce the fever. Prevention = applying mosquito measures during the daytime. For further information see: [www.itg.be](http://www.itg.be) – [www.travelhealth.be](http://www.travelhealth.be)  
[www.who.int/ith](http://www.who.int/ith) - disease distribution maps
- In many countries **rabies** still exists. Avoid contact with stray dogs, (tame) wild animals and road kills. When bitten by an animal, wash out the wound with water and soap, and disinfect with isobetadine. Do not delay consulting a doctor to see whether or not vaccination (with gamma globulin) is necessary.  
See map: [www.who.int/ith](http://www.who.int/ith) – disease distribution maps  
For further information see : [www.itg.be](http://www.itg.be) or [www.travelhealth.be](http://www.travelhealth.be)
- **Schistosomiasis** (Bilharziasis) is a worm infestation that may be contracted by swimming or bathing in contaminated water. It occurs in the major part of Africa and in limited areas of South America and the Near and Far East. Stagnant water offers the greatest risk (especially in dams), though contamination may also occur in rivers (large or small, fast- or slow running water). No preventive medication or vaccine exists against the parasite, so bathing or swimming in fresh water should be avoided. However, if you do swim in potentially contaminated water, a check-up is necessary after 3 months (serology, eosinophily). Rarely serious complications may already occur within the first months post-exposure (blood in the urine, paralysis), in which case you should immediately consult a medical doctor. [www.who.int/ith](http://www.who.int/ith) – disease distribution maps. See maps per country: <http://www.who.int/wormcontrol/documents/maps/country/en>
- In extremely rare cases, it may be useful to get some sterile needles from your local pharmacist in case you should need an injection on your journey (+ attestation warranting its possession for medical reasons). It is important to refuse injections if the medications can be taken orally.

## RETURNING HOME

If you have a **temperature, diarrhoea, stomach cramps, skin rash or itching** during the months after your return home remember that there may be a connection with your trip. Tell your doctor that you have been in the tropics or make an appointment with us in the morning. Persons who have been on a backpacking trip for months should have a **TB** check from 2 months after their return onward. If you had risky **sexual contacts**, you should consult a doctor, even if there are no symptoms.

There is also a **WEBSITE** for more detailed travel advice : [www.itg.be/](http://www.itg.be/) → [travelhealth.be](http://travelhealth.be)

**TRAVELPHONE:** The travelphone can be consulted 24 hours per day by dialling the number **0900/101 10** (0.15 Euro per 20 sec.). If you want to have supplementary information, you can be connected to a telephone operator (from Monday till Friday from 9:00 a.m. to 5:00 p.m).

**To the TREATING PHYSICIAN.....**

**PREVENTION SCHEDULE**

📁 Please keep this booklet

All the vaccinations administered are to be noted in the yellow booklet.

All the vaccines must be kept refrigerated but not frozen.

<input type="checkbox"/> Yellow fever	on .....	10 years validity
<input type="checkbox"/> <b>Tedivax PA<sup>®</sup></b> Tetanus + diphtheria	▪ 1° ..... (▪ 2° ..... ▪ 3° .....)	10 years validity
<b>Revaxis<sup>®</sup></b> Tetanus, Diphtheria, Polio	▪ 1° ..... (▪ 2° ..... ▪ 3° .....)	10 years validity
<b>Imovax-Polio<sup>®</sup></b> Polio	▪ 1° ..... (▪ 2° ..... ▪ 3° .....)	lifelong validity
<b>Boostrix<sup>®</sup></b> Tetanus-Diphtheria-Pertussis	▪ ..... (single injection)	
<b>Measles</b> Measles – mumps – rubella	▪ 1° ..... (▪ 2° .....)	lifelong validity
<input type="checkbox"/> Hepatitis A/B		
- (A) <b>Epaxal<sup>®</sup></b> , <b>Havrix<sup>®</sup>1440/720</b>		<u>Hepatitis A</u>
1° injection	on .....	1 year validity
2° injection (after 6-12 months)	on .....	lifelong validity
- (B) <b>Engerix<sup>®</sup>B, HBVAXPRO<sup>®</sup></b> or		<u>Hepatitis B</u>
(A&B) <b>Twinrix<sup>®</sup></b>	on .....	lifelong validity
1° injection	on .....	in case a complete vaccination cycle has been given before (possibility of nearly 95% after one injection cycle)
2° injection (after 1 month or .....)	on .....	
3° injection (after 4-6 months or .....)	on .....	
(4° injection, after .....)	on .....	
<input type="checkbox"/> Typhoid fever:		
- <b>Typherix<sup>®</sup>/Typhim Vi<sup>®</sup> injection</b>	on .....	3 years validity
<input type="checkbox"/> Meningococcal Meningitis		
- <b>Mencevax ACWY<sup>®</sup>/Menveo<sup>®</sup></b>	on .....	3 years validity
<input type="checkbox"/> Rabies	▪ 1° ..... ▪ 2° ..... ▪ 3° ..... ▪ one booster after 1 year or later.....	
<input type="checkbox"/> Japanese Encephalitis <b>Ixiaro<sup>®</sup></b>	▪ 1° ..... ▪ 2° .....	.....years validity

**Malaria**

- always avoid mosquito bites (a.o. mosquito repellent, impregnated mosquito net)
- Malarone<sup>®</sup>** (12 tab. = € 43.31), 1 tablet /day, start 1 day before arrival in the malaria risk region =..... until 7 days after return. To be taken during a meal – in specific cases Malarone can be used as an emergency treatment.
- Doxycycline** 1 tablet of 100 mg or ½ tab. of 200 mg/day (about ½ euro per dose, partially reimbursed), in a sitting position with plenty of liquid or during a meal → to start on..... until 4 weeks after leaving the malaria-endemic area
- Lariam<sup>®</sup>** (8 tab. = € 31,72), 1 tablet a week, with the evening meal
- Nivaquine<sup>®</sup>** (100 tab. = € 4.66), 3 tablets per week, in one dose, with the evening meal
- to start on..... until 4 weeks after leaving the malaria-endemic area

**First-aid kit**

- Anti-diarrhoea agents :  
Loperamide generic/Imodium  
Ciprofloxacin generic/ Ciproxine<sup>®</sup> / ofloxacin generic/ Tarivid<sup>®</sup> / Norfloxacin generic/ Zoroxin<sup>®</sup>  
azithromycin generic / Zitromax
- Disinfectant skin lesions; anti-itch cream
- Insect repellent.....
- Others (also a digital thermometer).....

Doctor's stamp