

## Vaccinations

Below you will find information about diseases, the risk of contagion, and preventive vaccinations.

- DTP - Diphtheria Tetanus Polio
- Yellow fever
- Hepatitis A
- Typhoid fever
- Cerebrospinal meningitis
- Hepatitis B
- Tickborne encephalitis
- Rabies
- Measles

### DTP - Diphtheria Tetanus Polio

#### **Risk-prone areas:**

All travelers should make sure any DTP vaccinations are up to date before leaving, no matter which country they are flying to: Africa, Asia, South America, and Eastern Europe.

#### **Description:**

Diphtheria is a bacterial infection transmitted through saliva. It manifests itself in the form of an aggravated sore throat, which can be complicated by respiratory paralysis that is sometimes fatal.

Tetanus comes from a bacterium that can contaminate an open wound into which dirt, man-made objects, or even thorns have entered. The infection causes violent muscular contractions that can interfere with breathing and cause death.

Poliomyelitis (polio) is caused by a virus and can be contracted through the absorption of contaminated water or food, or contact with a person who has polio. The disease is characterized by paralysis to differing degrees of severity, and is still present in certain regions around the world.

#### **Vaccination:**

In France, a polio vaccination is compulsory for all children. The first 3 injections are given at 1 month intervals, with a booster after 1 year, then every 5 years until the age of 18.

- After 18: a booster injection every 10 years.
- If you had your last booster shot more than 10 years ago: 2 booster injections at 1 month intervals, then in another 10 years.
- If you have never been vaccinated: 2 injections at 1 month intervals, booster shot after 1 year, then every 10 years.

The quadrivalent (diphtheria-tetanus-pertussis-polio) vaccine will be offered to adults who have not received vaccination against whooping cough during the past decade, notably at the 10-year mark with the diphtheria-tetanus-polio booster dose at 26-28 years.

## **Yellow fever**

### **Risk-prone areas:**

Tropical regions in Africa and South America.

### **Description:**

Yellow fever is caused by a virus contracted from a mosquito bite. Along with high fever, the disease can cause hemorrhaging and severe jaundice (yellow coloring of the skin) within a week. Yellow fever is fatal in 80% of all known cases.

### **Vaccination:**

This is the only mandatory vaccination required by international health regulations in certain countries for everyone over 1 year of age. The vaccination certificate must appear on an international vaccination record issued by an authorized center. Whether compulsory or not, the vaccination is essential when traveling to risk-prone areas and many Asian countries require it when traveling from an infected region.

- 1 injection at least 10 days before departure if it is your first injection,
- duration: 10 years.

Contraindications may occur in pregnant or lactating women, infants under 9 months, anyone allergic to eggs, undergoing corticosteroid treatment, or with an immunodeficiency. These must be evaluated on a case-by-case basis.

## **Hepatitis A**

### **Risk-prone areas:**

Hepatitis A is endemic in Africa, Asia, South and Central America, and Oceania.

### **Description:**

Hepatitis A – or jaundice – is caused by a virus that can be transmitted by water, food, or dirty hands. It results in digestive disorders and jaundice (yellow coloring of the skin), with possible complications.

### **Vaccination:**

Anyone who has never had the disease and will travel to countries with poor hygiene facilities should get vaccinated. Anyone who has been in contact with the hepatitis A virus is immunized for life. Screening for antibodies before travel is useful to determine if the vaccination is needed.

- For the 1<sup>st</sup> vaccination, 1 injection 2 to 3 weeks before departure,
- 1 booster 6 to 12 months later. The 2<sup>nd</sup> dose can be administered up to 3 to 5 years after the 1<sup>st</sup> injection, depending upon the strain.

## **Typhoid fever**

### **Risk-prone areas:**

All regions with poor hygiene facilities.

### **Description:**

Typhoid is transmitted by contaminated water and food and causes high fever. Victims can develop severe digestive, heart, or neurological problems.

### **Vaccination:**

Vaccination is highly recommended if traveling to Asia, North and South Africa, and South America. The need for vaccination also depends on the conditions and length of your stay. In general, the vaccine is administered to children age 5 and older, although in certain cases, children as young as 2 can be vaccinated.

- 1 injection 2 weeks before departure,
- duration: 3 years.

## **Cerebrospinal meningitis**

### **Risk-prone areas:**

Sub-Saharan Africa: the Sahel and savannah areas, from west to east, Senegal to Ethiopia, during the dry season, which is particularly favorable to the transmission of meningococcal disease (usually winter and spring). In addition, in any other area where there is an epidemic outbreak, particularly if subject to close and prolonged contact with the local population. The latest news on meningococcal outbreaks is available on the WHO website at: <http://www.pwhopint/csr/don>.

### **Description:**

The meningococcus bacterium is the cause of this acute meningitis, which can kill in a matter of hours. It is transmitted orally and has the following symptoms: fever, violent headaches, and stiff neck. Occurrence is a medical emergency, but the disease responds to antibiotic treatment.

### **Vaccination:**

Vaccination is recommended for anyone traveling during an epidemic outbreak in areas infected with susceptible strains.

- 1 injection, at least 10-15 days before departure,
- duration: 3 years.

Please note: a specific vaccine is required for travelers making the pilgrimage to Mecca. This same vaccine may also be recommended for travelers heading to Mali, Niger, Benin and Burkina Faso, depending on the evolution of an epidemic outbreak.

- 1 injection at least 10 days before departure,
- duration: 3 years.

## **Hepatitis B**

### **Risk-prone areas:**

Sub-Saharan Africa, Southeast Asia and Europe.

### **Description:**

Viral disease transmitted by the blood or through sexual contact. Hepatitis B is fatal in roughly 10% of known cases in France. The infection can manifest itself in the form of liver disorders or have no symptoms at all. The disease is serious because of the risk of later complications, including cirrhosis and liver cancer, which can sometimes appear years after infection.

### **Vaccination:**

Recommended for all ages for long-term residence or if engaging in high-risk activities in developing countries, where the disease is common.

- 2 injections at 1 month intervals then 1 injection 6 months later,
- for faster immunity, high-risk professions and persons, and those who anticipate frequent stays in risk-prone areas: 3 injections at 1 month intervals and a booster shot after 1 year.

## **Tickborne encephalitis**

### **Risk-prone areas:**

Central and Eastern Europe, and Northern Asia. Especially in April, May, October, and November.

### **Description:**

This is a kind of viral meningitis, which can be serious or result in subsequent neurological disorders. Usually caught from a tick bite, the disease can also be transmitted through food, especially unpasteurized or unboiled milk. Incubation occurs within 7-15 days.

### **Vaccination:**

Anyone can be vaccinated except for pregnant women and infants under the age of 1.

- 3 injections given at 1 month intervals between the 1st and 3rd month, and the 5th and 12th month,
- 1st booster within 5 years of receiving the 3rd dose (3 years for travelers over 60 years). A pediatric version of this vaccine can be administered according to the same immunization schedule starting at the age of 1.

## **Rabies**

### **Risk-prone areas:**

Africa, Asia, and South America.

### **Description:**

Rabies is contracted from the saliva of rabid animals, or if scratched or bitten by them. In nearly all cases these are domestic animals, primarily cats and dogs. A wound from a dirty utensil can also transmit the infection, which can be fatal if not treated quickly.

### **Vaccination:**

In the event of suspected contamination of a non-vaccinated subject, a course of curative vaccination must be initiated as quickly as possible at a rabies control center. The usual protocol is:

- 5 injections: immediately, 3<sup>rd</sup> day, 7<sup>th</sup> day, 14<sup>th</sup> day, 28<sup>th</sup> day.

Preventive vaccination is recommended for all travelers who will spend more than 1 month in affected areas, especially if hiking or camping.

- 3 injections on day 1, day 7, and day 28 (the last injection can be taken as early as day 21),
- booster after 1 year then every 5 years,
- if you are bitten or scratched by a rabid animal, even if you have been vaccinated, you must go to a rabies control center. Supplemental injections may be required.

## **Measles**

### **Risk-prone areas:**

Africa, Asia, and Europe.

### **Description:**

Measles is an acute viral infection that erupts as a rash. It mainly affects children over the age of 5-6 months. Measles vaccination, recommended for children over 1 year, aims to prevent complications, such as encephalitis, which can have severe consequences or result in death. The measles virus is transmitted orally, particularly through coughing.

### **Vaccination:**

Measles vaccination is recommended for anyone over the age of 12 months.

However, infants who are traveling to countries within Asia, Africa and Europe, during a current outbreak should be vaccinated at the age of 6 months, with a dose of monovalent measles vaccine between the ages of 6 and 8 months. Children who received the monovalent measles vaccine should receive 2 subsequent doses of trivalent (measles-mumps-rubella) vaccine according to their vaccination schedules.

- People born after 1980 and who are over the age of 24 months: 2 injections of trivalent (measles-mumps-rubella) vaccine regardless of previous infection history related to the 3 diseases.