



Updated version (16/01/2018 – UM) see: [www.travelhealth.be](http://www.travelhealth.be)

## JAPANESE ENCEPHALITIS

**Map:** [www.who.int/ith](http://www.who.int/ith) - disease distribution maps.

Japanese Encephalitis is a serious viral disease in Asia. It involves an influenza-like condition that can lead to very serious cerebral inflammation (diminished consciousness, paralysis, coma) in a few days. The incubation period is usually 1-15 days. Only 1 to 20 per thousand infected persons get ill (1/1000 – 1/50). The mortality rate among these symptomatic cases with signs of inflammation of the brain is approximately 25%. If a patient survives the illness, there is a 30% chance of neurological and/or psychiatric residual damage. There is no treatment for the virus.

The infection is transmitted exclusively by *Culex mosquitoes*. These mosquitoes bite from early dusk until dawn. In endemic areas only 1 to 3% of the *Culex* mosquitoes are infectious. Pigs and certain bird species form the reservoir of the virus.

The disease is endemic in **rural** areas of **Southern and South-east Asia** (from India to Japan), especially in parts of Bangladesh, Burma (Myanmar), Brunei, Cambodia, China, India, Indonesia (only on Java, Bali, Irian Jaya and Borneo; not on the other islands), Hong Kong, Japan, Thailand, Vietnam, Nepal (in the Terai, the lowland areas below 765 m), the Philippines, Korea, Laos, Singapore, Sri Lanka (only on the extreme northern tip of the island), Malaysia and a small region of Pakistan. The virus recently crossed the strait of Torres between Papua New Guinea and the extreme North of Queensland (Australia).

The infection occurs seasonally in most areas, mainly from April-May to October-December. The incidence reaches its peak in the temperate climate zones around the end of the summer and the beginning of autumn; in the tropical climate zones at the beginning of the monsoon. However, in a number of areas transmission is possible whole year, particularly in the three archipelagos (Philippines, Indonesia, Malaysia), but also elsewhere, depending on local ecological factors. The disease occurs especially in rural areas, where humans and pigs live in close proximity, and particularly in areas where there are rice paddies, as these make ideal breeding grounds for the mosquitoes. Infections can very occasionally occur on the outskirts of the big towns. In several endemic countries the number of cases has been considerably reduced thanks to an efficient vaccination policy and vector control.

In general terms, the risk for travellers to the Far East is extremely low (less than 1 in 1,000,000 tourists who have been travelling for 1 month). Depending on the season, the destination and travel conditions, the risk can increase to up to 1 in 5,000 per month.

## PREVENTION

### a) Vaccination

**Ixiaro**<sup>®</sup> (0,5 ml; € 83,28) is an inactivated vaccine for intramuscular use. For **children between 2 months and 2 years , half a dose** of Ixiaro<sup>®</sup> (0,25 ml) is administered. There is no distinct package for children, but in practice the same vaccine is used for adults (0,5 ml) as well as for children, but a clear red line indicates the correct quantity to administer to children (0,25 ml).

#### Conventional vaccination schedule:

- d0
- d28
- first booster between 12 and 24 months
- next boosters: no clear guidelines yet, not sooner than after 10 years.

#### Rapid vaccination schedule: (with adults)

- d0
- d7
- first booster between 12 and 24 months
- next boosters: no clear guidelines yet, not sooner than after 10 years.

One single dose doesn't give sufficient protection.

When a traveller was vaccinated before with (the now unavailable) Jevax<sup>®</sup>, it is not necessary to restart the vaccination schedule with Ixiaro<sup>®</sup> unless the last vaccination was given more than 5 years ago.

**Vaccination is not recommended for ordinary tourists or business travellers.** Some controversy exists over the correct indication for other categories of travellers. Much depends on the duration and circumstances of the journey, as well as the chance of an unplanned stay in a high risk area. Most specialists agree that vaccination is generally only recommended for individuals or professionals (like biologists, agronomists, anthropologists, etc.) travelling for at least 3-4 weeks through **rural areas** during the transmission season (staying in villages and farms, especially in areas where wet rice fields are located next to pig breeds). In any case, the vaccination should be discussed with people going to live in rural areas (also India for instance) or in towns. The indication should first be discussed during a consultation in a vaccination center. For example there have been reports of an increase in cases of Japanese Encephalitis in the Nepalese Terai and even in the Katmandu valley since 1997. Vaccination has been advised by some authorities for a stay between August and October.

**b) Protective measures against mosquito bites from early dusk, such as for malaria, are an effective alternative!**



[www.who.int/ith](http://www.who.int/ith) → disease distribution maps