Japanese Encephalitis Vaccine

You should consider being immunised against Japanese encephalitis before you travel to certain countries in Southeast Asia and the Far East.

Japanese encephalitis can be a serious illness causing inflammation of the brain. The risk of developing Japanese encephalitis is very low. However, you may need the vaccine if you are staying longer than a month. Check with your practice nurse 6-8 weeks before you travel to see if you should have this vaccination.

What is Japanese encephalitis?

Japanese encephalitis is caused by a virus. It used to be called Japanese B encephalitis. It is passed to humans by the bite of an infected mosquito. It cannot be transmitted by other humans. These mosquitoes often feed on pigs and wading birds (such as herons). So Japanese encephalitis is more common in areas where pigs and wading birds are found. In particular it is common in areas of rice fields (paddy fields) and pig farms.

Japanese encephalitis is usually a mild illness. In many cases there are no symptoms. However, in a small number of cases (about 1 in 250 infected people) the illness is much more serious. In these people, the infection may start with high temperature (fever), tiredness, headache, being sick (vomiting) and sometimes confusion and agitation. This may progress to inflammation of the brain (encephalitis). This can cause permanent brain damage and is fatal in some cases.

Japanese encephalitis occurs throughout Southeast Asia and the Far East. It is mainly a problem in rural farming areas. It occurs more commonly in the rainy season when the mosquitoes are most active. This season (known as the transmission season) varies between countries. For example:

- In China, Korea and Japan, it is most common between May and September.
- In Thailand, Cambodia and Vietnam, it is most common between March and October.
- In Nepal and North India, it is most common between September and December.
- In Malaysia, Indonesia and the Philippines, it is common all year round as the rains can come throughout the year.

Who should be immunised against Japanese encephalitis?

Your doctor or practice nurse can advise if you should have this vaccination for your travel destination.

- Generally, it is advised for travellers who stay for a month or longer during the transmission season in rural areas of certain countries in Southeast Asia and the Far East.
- It may be advised for shorter trips to these countries if you are at particular high risk. For example, if you travel to areas where rice and pig farming co-exist or if you do a lot of outdoor activities.

The vaccine is also recommended for laboratory workers who may be exposed to the virus with their work.

This vaccine is not currently available on the NHS. You will have to pay for it at your surgery, pharmacy or travel clinic.

The vaccine schedule

The vaccine stimulates your body to make protective proteins called antibodies against the virus. These antibodies protect you from illness should you become infected with this virus.

In the UK, there is only one Japanese encephalitis vaccine recommended. It is called IXIARO®. It is licensed for use from the age of 2 months. This is usually given as two injections; the second injection is given 28 days after the first. Children between the ages of 2 and 36 months are given half the dose.

Full immunity takes up to a week to develop. The course of injections should be completed at least one week before departure. So, you should see your practice nurse well in advance of your travel date.

A booster dose may be needed if you are still in an at-risk area after 1-2 years.

Who should not receive the Japanese encephalitis vaccine?

If you are ill with a fever you should postpone the injection until you are better. You should not have an injection of this vaccine if you have had an allergic reaction to a previous dose of this vaccine.
There is no evidence of risk with this vaccine if you are pregnant or breast-feeding. However, if you are pregnant or breast-feeding, it is usually only given if the risk of Japanese encephalitis is very high and cannot be avoided.

Are there any possible side-effects from the vaccine?

Mild pain and redness occur at the site of injection in some people. The most common side-effects are headache and muscle aches. Other less common reactions include a flu-like illness, fever and feeling tired.

You should also try to prevent mosquito bites

Vaccination is only one aspect of preventing illness whilst abroad. Vaccination is not completely reliable and you should also try to avoid mosquito bites when in ‘at-risk’ areas.

Mosquito bites can be avoided by the following:

- Sleep in rooms that are properly screened. For example, rooms with close-fitting gauze over windows and doors.
- Spray the bedroom with insecticide just before evening. This kills mosquitoes that may have come into the room during the day.
- If you sleep outdoors or in an unscreened room, use mosquito nets impregnated with an insecticide (such as permethrin). The net should be long enough to fall to the floor all around your bed and be tucked under the mattress. Check the net regularly for holes. Treat the net with fresh insecticide every six months.
- Use an electric mat to vaporise insecticide overnight. Burning a mosquito coil is an alternative.
- Mosquitoes that carry the Japanese encephalitis virus are most active at dusk and in the evening. If possible, avoid going out after sunset. If you do go out after sunset then wear long-sleeved clothing, trousers and socks. Light colours are better, as they are less attractive to mosquitoes.
- Apply insect repellent to clothing or exposed skin. Diethyltoluamide (DEET) is safe and effective but take advice on the best repellent in the area you visit.

Further reading & references

- Travelling if you have a medical condition; British Airways (includes downloadable MEDIF forms)
- Travax
- Travel Health Advisor
- Travel and Diabetes; Diabetes UK
- Immunisation against infectious disease - the Green Book (latest edition); Public Health England
- Travellers Health; US Centers for Disease Control and Prevention
- Travel Health Pro; National Travel Health Network and Centre (NaTHNaC)

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Author: Dr Colin Tidy
Peer Reviewer: Dr Adrian Bonsall


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