

Japanese Encephalitis

Japanese encephalitis (JE) is a serious infection of the brain caused by a virus that can be spread by some (but not all) types of mosquitoes.

JE occurs in many parts of Southeast Asia and China, and in recent years the disease has extended beyond its traditional boundaries with occasional cases in eastern Indonesia, occasional outbreaks in the Torres Strait and one case in north Queensland. JE is now considered endemic in the Torres Strait region and Papua New Guinea. The type of mosquitoes that are able to spread JE breed extensively early in the wet season, and it is possible that the prevailing northwest winds and tropical storms may have blown infected mosquitoes into the Torres Strait.

Signs and Symptoms:

The vast majority of people infected with JE virus have no symptoms, while a small proportion may have very severe symptoms such as headache, high fever, convulsions and coma. Of these severe cases, approximately one third die and one third are left with permanent disabilities.

Transmission

The JE virus can only be spread by the bite of an infected mosquito. Mosquitoes become infected soon after they bite infected pigs. After a person is bitten by an infected mosquito, it usually takes five to 15 days for the first symptoms to appear.

Treatment:

There is no specific treatment. Treatment usually involves management of the symptoms.

Prevention:

Immunisation plays an important role in protecting against JE. Two JE vaccines, each with different characteristics, are available for use in Australia. Imojev is registered for use in children =12 months and adults in a single dose. JEspect is registered for use in individuals aged =18 years and is a two dose schedule, given 28 days apart. The vaccine can be given in pregnancy, if necessary.

JE vaccine is funded for:

- All long term residents (=12 months of age) of the outer islands in the Torres Strait.

JE vaccine is recommended (but not funded) for:

- travellers (=12 months of age) spending one month or more in rural areas of high risk countries in Asia and Papua New Guinea (depending on where they are going, for how long and at what time of year)
- all non-residents (=12 months of age) who will be living or working on the outer islands of the Torres Strait for a cumulative total of 30 days or more during the wet season (December to May).

The most common side effects following JE vaccination are injection site pain, headache, fatigue and generally unwell with most symptoms resolved within 3 days.

People travelling in Asia and Papua New Guinea, particularly during the monsoonal wet season, should take care to avoid exposure to mosquitoes during biting hours (eg. dusk until dawn).

Make sure you:

- wear loose-fitting light-coloured clothing with long sleeves, long trousers and socks especially at dusk and in the first few hours after sunset
- use insect repellent containing diethyltoluamide (DEET) or picaridin when outdoors (lotions and gels are more effective and longer lasting than sprays)
- use mosquito-proof tents when camping
- use mosquito nets when sleeping unless accommodation is air conditioned or has mosquito screens on doors and windows.

Help and assistance:

For further information, please contact your local doctor, community health centre or nearest public health unit. Travel vaccines need to be considered in the context of your specific travel itinerary. Immunisation needs should be discussed with your doctor or travel medical centre at least six weeks before you travel. For further advice on travel vaccinations, visit the Australian Government's [Smart Traveller](http://www.smarttraveller.gov.au/) (<http://www.smarttraveller.gov.au/>) website.

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References

Australian Government, 2013. The Australian Immunisation Handbook, 10th edition

Mandell GL, Bennett JE and Dolin R. Principles and practice of infectious diseases, 7th edition. Philadelphia (PA). Churchill Livingstone Elsevier; 2010: p.2133-56 (vol 2).