



Japanese Encephalitis



What is Japanese encephalitis?

Encephalitis is inflammation of the brain tissue and is usually caused by an infection. Japanese encephalitis (JE) is a potentially fatal disease caused by the Japanese encephalitis virus.

How is it spread?

The JE virus is spread by the bite of an infected mosquito. It cannot be spread from person to person.

Pigs and wild water birds play an important role in the spread of JE virus. The virus multiplies in infected pigs, leading to very high levels in their blood. Mosquitoes feeding on infected pigs are highly likely to pick up the virus and may then spread it to humans.

Where and when is the virus found?

JE virus has been found throughout Asia and in the Torres Strait region of Australia. To date no cases have been acquired in the Northern Territory (NT).

In 1995 the first case of JE in Australia was reported from Badu Island in the Torres Strait. The virus is thought to have spread south from Papua New Guinea. Since 1995 there have been 5 cases (including 2 deaths) of JE acquired in Australia. Four of

the cases have been acquired in the Torres Strait and one from the mainland on Cape York Peninsular.

The risk to humans is greatest during or just after the Wet season when large numbers of the common banded mosquito are present. Humid conditions allow mosquitoes to live longer, which provides more chance for a mosquito to pick up the virus from an animal and live long enough to pass it on to humans.

The virus has not been found in the NT however the mosquitoes capable of spreading the virus are found in the NT.

How serious is JE?

JE is a potentially fatal disease, however only 1 in 30-300 people bitten by an infected mosquito will become ill. Of people who develop the disease, 10 to 30% will die, 50% will recover but have permanent disability and 25% will recover completely. Children under 15 years of age are at greatest risk of developing severe disease.

What are the symptoms?

It usually takes 5 to 15 days between getting bitten and becoming unwell.

Symptoms include: headaches, fever, seizures or fits (especially in young

children), neck stiffness, drowsiness, confusion and progression to delirium and coma in severe cases.

What is the treatment?

There is no specific treatment for JE disease.

How can JE be prevented?

Vaccination

A JE vaccine is available and is recommended for:

- travellers spending 1 month or more in rural areas of Papua New Guinea, East Timor or Asia, particularly if travel is during the wet season, and/or there is considerable outdoor activity and/or the standard of accommodation is suboptimal
- travellers spending a year or more in Asia (except Singapore), even if most of the stay is in urban areas
- all residents (over 1 year of age) of the outer islands in the Torres Strait
- anyone 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 (Dec to May)

Personal Protective Measures

- avoid being outside when vector mosquitoes are most active, from just before and until 2 hours after sunset

- wear loose light coloured clothing with long sleeves, long trousers and socks (mosquitoes can bite through tight-fitting clothes)
- apply a protective repellent containing up to 20 percent diethyl toluamide (DEET) or picaridin to exposed areas of skin (lotions and gels are more effective and long lasting than sprays)
- after sundown avoid areas with numerous mosquitoes in close proximity to wet lands where birds and feral pigs might be present
- ensure flyscreens in houses or caravans are in good repair
- if camping out, either sleep in a mosquito-proof tent or under a mosquito net

Repellents only protect against mosquito bites for up to 4 hours, not all night.

What is the risk in the NT?

The JE virus has not been detected in the NT although the mosquitoes capable of spreading it are common. The Medical Entomology Branch, in conjunction with the Department of Business, Industry and Resource Development, conducts a surveillance and monitoring program to ensure early detection of any spread of JE virus into the NT.

For more information contact your nearest Centre for Disease Control.

Darwin	89228804
Katherine	89739040
Nhulunbuy	89870282
Tennant Creek	89624259
Alice Springs	89517548