

# Japanese encephalitis



Japanese encephalitis (JE) is a rare disease caused by the Japanese encephalitis virus.

It is spread to humans by infected mosquitoes.



Japanese encephalitis is a notifiable condition<sup>1</sup>

## How is Japanese encephalitis spread?

- > The Japanese encephalitis virus is transmitted to humans through bites from *Culex* mosquitoes, which have been infected with Japanese encephalitis virus. *Culex* mosquitoes are commonly found in South Australia.
- > The virus exists in a transmission cycle between mosquitoes, pigs and/or water birds.
- > Pigs are an important host for the virus. The virus can occur at high levels in their blood for 4-6 days. Mosquitoes that feed on infected pigs during this period can become infected with the virus and then transmit it to humans.
- > It cannot be transmitted by eating meat of infected animals. It cannot be spread from person to person.
- > Until recently, risk for Japanese encephalitis virus infection for people living in Australia was only through overseas travel, or rarely by travel/residence in the far North of Australia. Recently however there have been cases acquired locally for the first time.

## Signs and symptoms

Most people with Japanese encephalitis virus infection do not experience any illness. There may be mild symptoms such as fever and headache.

A small proportion will have encephalitis (inflammation of the brain). This may begin with symptoms such as:

- > tiredness
- > fever and headache
- > nausea
- > vomiting, or diarrhoea.

Confusion, unusual behaviour, sleepiness, seizures, weakness, and abnormal movements may develop. Encephalitis can cause permanent damage to the nervous system, or death.

If you have symptoms consistent with JE seek medical attention.

**If you have any severe signs such as headache, vomiting, confusion, paralysis or seizures you should call 000 immediately.**

## Diagnosis

Diagnosis is usually made by a blood test or sample from the spinal fluid. If you have been infected, you do not put others at risk.

## Incubation period

*(time between becoming infected and developing symptoms)*

Symptoms (if they are to occur) usually develop 5 to 15 days after being bitten by infected mosquitoes.

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1 – In South Australia the law requires doctors and laboratories to report some infections or diseases to SA Health. These infections or diseases are commonly referred to as 'notifiable conditions'.

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## Treatment

There is no specific treatment for patients with JE. Treatment is supportive to relieve symptoms.

## Prevention

- > People should take steps to limit their exposure to mosquitoes. There are simple steps you can take to protect yourself and your family against mosquito-borne diseases. For more information, see [Fight the Bite](#).
- > Exclusion from childcare, preschool, school or work is not necessary.
- > All people who work with potentially infected animals or work in areas in which infected mosquitos may be present, should wear appropriate personal protective equipment (PPE). The PPE should be chosen based on the assessed level of risk and the task.

## Immunisation

There are two Japanese encephalitis vaccines available. Japanese encephalitis vaccination is recommended for persons at highest risk of infection, including certain occupations and travellers spending one month or more in rural areas of high-risk countries for Japanese encephalitis.

For more detailed Japanese encephalitis vaccination advice see the [Australian Immunisation Handbook](#) and consult with your GP.

## Useful links

SA Health Wash, Fight the Bite  
[www.sahealth.sa.gov.au/FightTheBite](http://www.sahealth.sa.gov.au/FightTheBite)

SA Health website  
[www.sahealth.sa.gov.au/YouveGotWhat](http://www.sahealth.sa.gov.au/YouveGotWhat)

- > Exclusion from childcare, preschool, school or work
- > Protecting yourself and your health whilst travelling overseas
- > When you have a notifiable condition

SA Health, JE resources and information for Environmental Health Officers  
<https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/public+health/environmental+health+officers/mosquito+management/japanese+encephalitis+virus+for+environmental+health+officers>

Australian Government, Australian Immunisation Handbook  
<https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/japanese-encephalitis>

## You've Got What? 5th Edition

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Official

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