

# Murray Valley encephalitis



Murray Valley encephalitis (MVE) is a rare disease in humans caused by the Murray Valley encephalitis virus. This infection has the capacity to cause acute and severe illness in humans and can be fatal.

MVE virus is endemic (always present) in northern Australia (northern Western Australia and the top end of the Northern Territory) and probably in Papua New Guinea, but illness in humans is rare.

Most reported human cases occur in northern Australia and Papua New Guinea, although there have been rare cases from South Australia.



**Murray Valley encephalitis (MVE) is a notifiable condition<sup>1</sup>**

## How Murray Valley encephalitis is spread

Murray Valley encephalitis is spread from infected animals to humans by mosquito bites. There is no direct person-to-person spread.

## Signs and symptoms

Symptoms of Murray Valley encephalitis include:

- > fever
- > drowsiness (excessive sleepiness)
- > confusion
- > headache
- > neck stiffness
- > nausea and vomiting
- > tremors

- > seizures (fits)
- > additionally in infants, irritability and floppiness.

Many people infected with Murray Valley encephalitis virus have no symptoms or mild symptoms. Mild illness may include symptoms such as fever:

- > headache
- > nausea
- > vomiting.

In about 1 in 1000 infected people symptoms worsen, with:

- > increasing confusion
- > headaches
- > drowsiness
- > possible seizures indicating progression to meningitis (inflammation of the lining of the brain and spinal cord) or encephalitis (infection or inflammation of the brain).

## Diagnosis

Diagnosis is made by a blood test or detecting the virus in CSF (cerebrospinal fluid: the fluid surrounding the brain and spinal cord).

## Incubation period

*(time between becoming infected and developing symptoms)*

Usually 7 to 12 days, but can be as short as 5 days or as long as 28 days.

## Infectious period

*(time during which an infected person can infect others)*

There is no evidence of person-to-person transmission. Infection with Murray Valley encephalitis confers life-long immunity.

# Murray Valley encephalitis



## Treatment

There is no specific treatment for Murray Valley encephalitis and no vaccine to prevent infection.

People who are diagnosed with Murray Valley encephalitis are usually very sick and require supportive care in hospital until they recover.

About 20% of people who become ill with severe Murray Valley encephalitis will die. Of those that survive, about 40% have permanent neurological damage such as paralysis or brain damage. Others still may take several months to recover.

## Prevention

- > Exclusion from childcare, preschool, school or work is not necessary but cases should avoid being bitten by mosquitoes while they are unwell.
- > There is no vaccine to prevent human infection by this virus.
- > Personal protection and the environmental management of mosquitoes are important in preventing illness.

## Useful links

Fight the Bite – [www.sahealth.sa.gov.au/fightthebite](http://www.sahealth.sa.gov.au/fightthebite)

> Avoiding mosquito bites

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

> Barmah Forest virus

> Chikungunya virus infection

> Dengue fever

> Japanese encephalitis

> Kunjin/West Nile virus infection

> Malaria

> Ross River virus infection

> Yellow fever

> When you have a notifiable condition

1 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'.

## You've Got What? 5th Edition

Communicable Disease Control Branch

Telephone: 1300 232 272 Email: [HealthCommunicableDiseases@sa.gov.au](mailto:HealthCommunicableDiseases@sa.gov.au)

The SA Health Disclaimer for this resource is located at [www.sahealth.sa.gov.au/youvegotwhat](http://www.sahealth.sa.gov.au/youvegotwhat)



This document has been reviewed and endorsed by SQCAG\* for consumers and the community FEBRUARY 2016.

Public-I3-A1

© Department for Health and Ageing, Government of South Australia. All rights reserved. FIS: 15127.1. Version 1. February 2016.

\*SA Health Safety and Quality Community Advisory Group



[www.ausgoal.gov.au/creative-commons](http://www.ausgoal.gov.au/creative-commons)



Interpreter



Government  
of South Australia

SA Health