

Kunjin Virus Infection

This illness is caused by infection with the Kunjin virus, which is closely related to West Nile virus (another potentially serious illness spread by the bite of an infected mosquito).

Kunjin virus is endemic (always present), in tropical parts of Australia, in birds. Illness in humans is rare and most reported cases occur in northern Australia.

The infection is spread from infected animals, including water birds and other birds, and mammals, to humans by mosquito bites.

Most persons with Kunjin virus infection have mild or no symptoms.

Symptoms of Kunjin virus infection may include:

- > fever
- > malaise
- > headache
- > muscle aches
- > swollen lymph nodes
- > fatigue
- > rash
- > swollen and aching joints.

Rarely infection may progress to encephalitis (infection of the brain). Symptoms of encephalitis may include: fever, rigors, headache, neck stiffness, irritability, confusion, drowsiness and seizures (fits). Kunjin virus encephalitis is similar to Murray Valley Encephalitis but is usually milder.

Diagnosis is made by blood tests or by detecting Kunjin virus in cerebrospinal fluid (fluid surrounding the brain and spinal cord).

Incubation period

(time between becoming infected and developing symptoms)

Probably 2-14 days.

Infectious period

(time during which an infected person can infect others)

There is no evidence of person to person transmission.

Infection with Kunjin virus is thought to confer life-long immunity.

Treatment

There is no specific treatment for Kunjin virus infection and no vaccine to prevent infection.

Control of spread

Exclusion from child care, preschool, school or work is not necessary.

There is no vaccine to prevent infection with Kunjin virus.

Personal protection from mosquito bites and environmental management of mosquitoes is the key to prevention.

Personal protection

- > Cover up with long, loose fitting clothing of sufficient thickness to prevent mosquitoes biting through the fabric.
- > Avoid exposure outdoors when mosquitoes are most active.
- > Use an insect repellent containing DEET or Picaridin (the most effective repellents contain 5-20% di-ethyl-N-touamide or DEET) on exposed skin. Apply in accordance with the manufacturer's instructions. Avoid using on babies and toddlers.
- > Use flyscreens and mosquito nets in accommodation where there are no flyscreens. This is particularly important when camping outdoors, as insect repellents are only effective for around four hours.
- > Avoid mosquito-prone areas.

General mosquito control measures – eliminating mosquito breeding sites

Mosquitoes breed in still water.

- > Dispose of all containers which hold water, or cover or put holes in them.
- > Empty pot plant drip trays once a week or put sand around pot bases to absorb water.
- > Empty bird baths and pet drinking water containers at least every three days.
- > Boats, canoes and dinghies should be overturned or have the drain plug removed so they do not hold water after rain.

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Control of spread cont.

- > Screen all openings to tanks, wells or other large water containers with wire gauze no coarser than 1mm mesh.
- > Keep roof gutters in good repair and regularly remove leaves and debris so that pools of water do not form.
- > Dispose of all waste water in such a way that no ponding occurs. Keep all open drains and channels free from obstruction, especially weeds, grass and other debris.
- > Keep fish ponds, ornamental ponds, dams and unused swimming pools stocked with fish which will eat mosquito larvae. Goldfish or Australian native fish are recommended.
- > Keep swimming pools adequately chlorinated or salted.



Kunjin virus infection is a notifiable disease

- > [Avoiding Mosquito Bites](#) page 27
- > [Murray Valley Encephalitis virus Infection](#) page 112

Useful websites

- > [Avoiding Mosquito Bites](#)
<http://www.sahealth.sa.gov.au>
- > [Fight the Bite](#)
<http://www.sahealth.sa.gov.au>