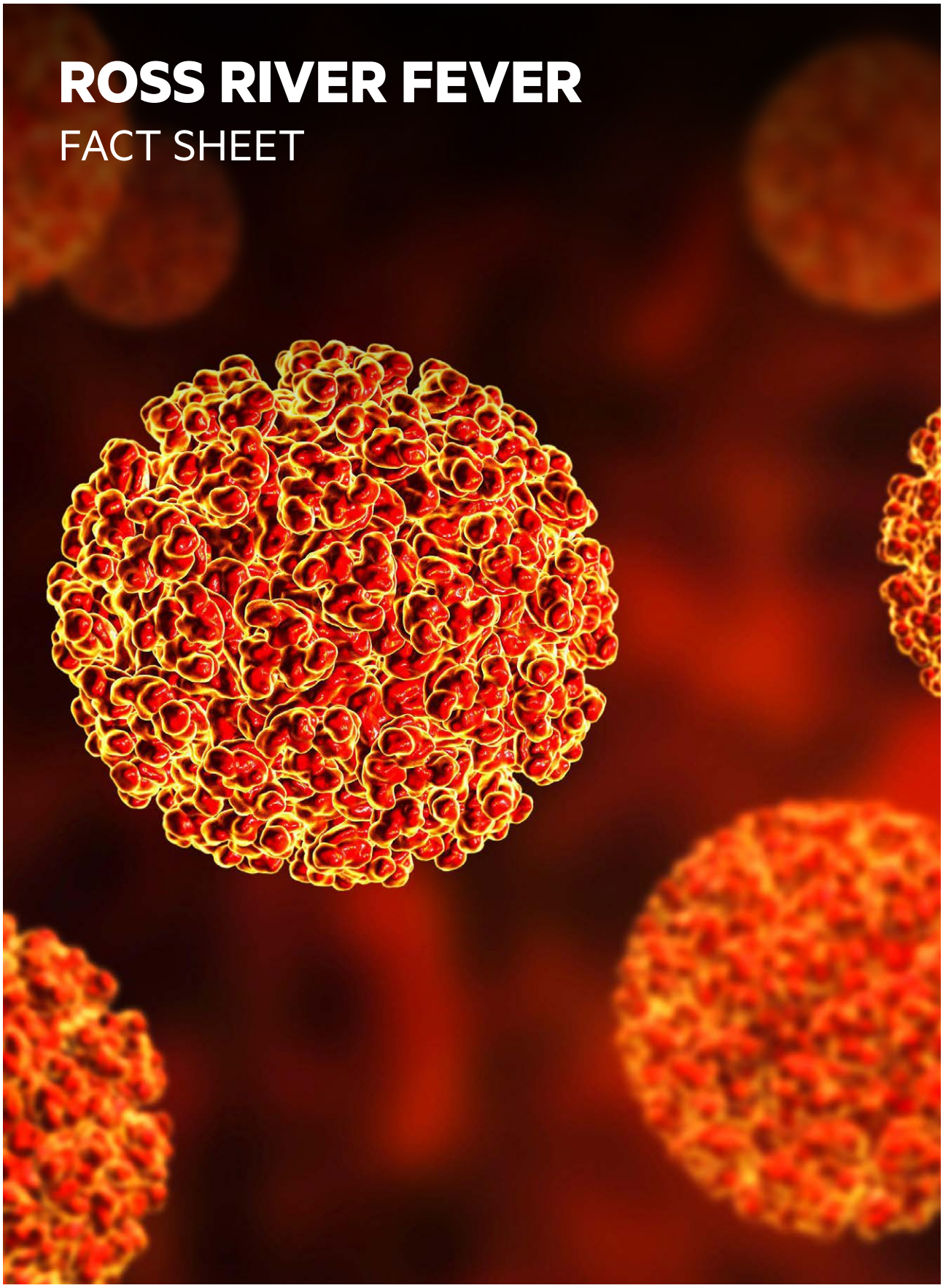
QUEENSLAND MUSEUM

ROSS RIVER FEVER

FACT SHEET



Q26-027

Queensland Government

WHAT IS ROSS RIVER FEVER?

Ross River fever is a zoonotic disease caused by an arbovirus called *Alphavirus rossriver* (Ross River virus, RRV). It can be transmitted to humans via mosquito vectors.

Ross River virus gets its name from Ross River in Townsville, Australia, where it was first isolated from mosquitoes in 1959. Arboviruses are transmitted by arthropods like mosquitoes.

Natural hosts

- Marsupials, primarily macropods (kangaroos and wallabies), are the main reservoir hosts for RRV.
- Domestic animals, urban wildlife (e.g. possums, bats) and humans are significant reservoir hosts in urban areas.

How is it spread?

RRV is spread when an infected female mosquito bites a vertebrate (e.g. kangaroo, human). This virus is multi-vector and can be carried by around 40 mosquito species in Australia, including:

- *Culex annulirostris* (freshwater mosquito)
- *Aedes vigilax* (saltmarsh mosquito)
- *Aedes notoscriptus* (most common backyard container breeder).

These mosquitoes breed in a variety of habitats, such as saltmarshes, floodwaters, wetlands, rainwater tanks, pot plant trays and backyard containers. *A. vigilax* breeds in salty pools in mangroves and saltmarshes after flooding by spring tides and heavy rains. *C. annulirostris* breeds in permanent bodies of fresh water while *A. notoscriptus* breeds in containers in urban environments, such as bird baths, pot plant trays and backyard rubbish (e.g. tyres) that holds water.

Ross River fever is the most widespread mosquito-borne disease in Australia, accounting for the most human infections. It is endemic across every state and territory.

RRV cannot spread directly between vertebrates. Instead, the virus cycles between animals (mainly marsupials) and mosquitoes. Via the mosquito vector feeding on viraemic wildlife or humans, RRV spreads throughout wildlife populations, from animal to human and from human to human.

Inside female mosquitoes, RRV multiplies.



Who is at risk?

- People living in warm and humid climates near wetlands, bushland or coastal areas (e.g. northern Australia, regional Queensland).
- Construction workers, agricultural workers, landscape staff, rangers, fishers, field scientists and other people who work outdoors.
- People camping, fishing, hiking, gardening or exercising outside at dawn or dusk (when mosquitoes are most active) in high-incidence tropical areas.
- People exposed to large mosquito populations after rain or flooding.

What are the symptoms?

In animals

Most infected wildlife (e.g. kangaroos) show no obvious signs.

In humans

Many infections produce no symptoms. Some infections cause flu-like symptoms that appear 7–10 days after the mosquito bite.

Symptoms may include:

- headache
- fever
- fatigue

- polyarthritis (joint pain, stiffness or swelling, particularly in the morning)
- myalgia (muscle pains)
- chills
- rash.

Most people with RRV will make a full recovery after a few weeks. Others may experience symptoms such as ongoing joint pain and fatigue for several weeks or months.

How can I prevent infection?

There is no commercially available vaccine for RRV and the best way to reduce the risk of infection is through mosquito population management and avoidance of mosquito bites.

Prevention measures include:

- Remove water-holding containers around the home (e.g. pot plant trays, buckets, tyres, blocked gutters).
- Use insect repellents (DEET or picaridin).
- Install flyscreens.
- Wear a long-sleeved shirt and long pants outdoors.
- Avoid outdoor activity at peak mosquito times (dawn and dusk).
- Support public health mosquito-control programs.

Mosquito population management is the most effective prevention measure.



What treatments are available?

Medical care is supportive, focusing on symptom relief and joint pain management. There is no specific antiviral treatment for RRV.

Most people recover completely with time and supportive care.

If you think you may have been exposed to RRV, please contact your doctor or public health agency for further advice.

Cover: A computer illustration of Ross River virus. Courtesy: Alamy/Dr_Microbe
Page 2: An *Aedes notoscriptus* mosquito. QM, Jeff Wright
Page 3: *Aedes notoscriptus* mosquitoes breed in containers in urban environments such as plant trays or backyard rubbish that hold water. Courtesy: Alamy/Roger Eritja

Last updated: June 2026

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