



Mosquito-borne diseases



Culex annulirostris courtesy of Department of Health

Health warning

The mosquito-borne diseases that are of concern in Western Australia are:

- Ross River virus disease
- Barmah Forest virus disease
- Murray Valley encephalitis
- Kunjin virus disease.

These diseases are caused by viruses that are transmitted by the bite of an infected mosquito. They cannot be caught by direct contact with another person or animal.

Note: Dengue fever and malaria are not currently transmitted in Western Australia.

Ross River and Barmah Forest virus diseases

Symptoms

- Painful and/or swollen joints
- Sore muscles
- Aching tendons
- Skin rashes
- Fever
- Tiredness
- Headaches
- Swollen lymph nodes

Disease risk

Cases of Ross River and Barmah Forest virus diseases occur across Western Australia. The risk of virus transmission is generally highest during spring and summer in southern regions of the State, and during the wet season in the north.

Mosquito-borne disease activity is environmentally driven. There is an increased risk in coastal areas following high tides, and in inland areas following heavy rainfall.

Murray Valley encephalitis and Kunjin virus diseases

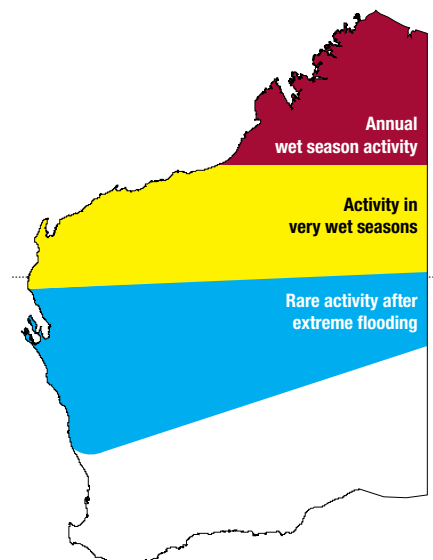
Symptoms

- Fever
- Drowsiness
- Bad headache
- Stiff neck
- Nausea and vomiting
- Dizziness
- Muscle tremors

Disease risk

The Department of Health advises people living, working and travelling in northern Western Australia to take extra care to avoid mosquito bites due to the potential presence of Murray Valley encephalitis and Kunjin viruses. The risk of infection with these viruses is low but symptoms can be severe.

Virus activity occurs annually in the Kimberley region and during most wet seasons in the Pilbara. On rare occasions, it has been detected in the Gascoyne, Midwest and northern parts of the Wheatbelt and Goldfields regions after flooding events.



Murray Valley encephalitis risk areas

Reducing the risk

There are no specific cures or vaccines for any of these mosquito-borne diseases so it is very important that people take care to prevent being bitten by mosquitoes and avoid mosquito habitats where possible.

Mosquitoes are most prevalent:

- at dusk and night
- where there are large bodies of water
- where there is stagnant water
- during warm weather.

Some seasonal weather patterns promote mosquito activity and increase the risk.

Controlling mosquitoes in most rural and remote regions of Western Australia is generally not possible because of the large size and inaccessibility of the natural mosquito breeding habitat. However, the risk of contracting mosquito-borne viruses can be reduced by taking a few simple precautions.

- Avoid outdoor exposure during periods of greatest mosquito activity, which are generally one to three hours after sunset and again around dawn.
- Wear long, loose-fitting and light-coloured clothing to prevent mosquito bites.
- Apply a personal insect repellent to exposed skin or clothing, and read the manufacturer's instructions to determine the method and frequency of application. The most effective and long-lasting formulations are lotions or gels containing diethyl toluamide (DEET) at 5 to 20 per cent or Picaridin. Most natural or organic repellents are not as effective as DEET or Picaridin, and need to be reapplied more frequently.
- Ensure insect screens are installed and completely mosquito-proof. Mosquito bed nets provide additional protection. When camping, use mosquito-proof tents or cover swags with mosquito nets.
- Adult mosquitoes are susceptible to desiccation (drying out) and are less active in windy conditions so, where possible, locate camp sites or accommodation villages away from mosquito habitats, particularly locations that may be very sheltered and the air is likely to be still.
- Ensure the drainage system at camp sites or accommodation villages does not allow water to accumulate and stagnate.

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Issued 23 September 2014