

# Mosquito-borne diseases after a storm, flood or cyclone

## Description

Receding flood waters and pooling water from heavy rainfall can provide perfect conditions for mosquito breeding. This can result in more mosquitoes, increasing the potential for outbreaks of mosquito-borne diseases. The most common mosquito-borne diseases in Queensland are caused by Ross River and Barmah Forest viruses. Outbreaks of dengue have been reported annually in north Queensland. Kunjin Virus disease and Murray Valley encephalitis (MVE) have also rarely been reported.

## Symptoms

The incubation period for mosquito-borne diseases varies. Symptoms are usually present 3–15 days after being bitten by an infected mosquito. Common signs and symptoms are:

- headache
- fever
- joint or muscle pain
- skin rash
- fatigue
- nausea.

Most people infected with Kunjin and MVE viruses do not develop symptoms. However others—especially young children—may experience:

- high fever
- headache
- neck stiffness
- irritability
- confusion
- drowsiness or seizures.

It is important to seek prompt medical assistance if symptoms are experienced.

## Transmission

Mosquito-borne diseases are transmitted via bites by infected mosquitoes and cannot be transmitted directly from person-to-person. Different mosquitoes prefer to bite at different times of the day and night. It is important to be vigilant at all times and use the personal protection measures listed to prevent being bitten.

## Treatment

If diagnosed with a mosquito-borne disease it is important to prevent being bitten again by mosquitoes to ensure the disease transmission cycle does not continue. Contact your doctor or healthcare professional for advice on the most appropriate course of treatment.

## Prevention

### Personal protection

There are several measures that can be taken by the public to prevent mosquito-borne diseases from occurring. Personal protection measures can reduce the risk of you and your family getting bitten by mosquitoes:

- use insect repellent (in accordance with manufacturers instructions), especially when outside at dawn or dusk
- in dengue receptive areas (north Queensland) protect against mosquito bites during the day as the dengue mosquito bites during the day and likes to rest indoors
- wear long, loose, light-coloured clothing
- use flying insect spray, mosquito coils or plug-in insecticide devices to kill mosquitoes in-doors
- use bed nets, if available
- repair defective insect screens or fit new screens, if possible.

Personal repellents containing DEET or picaridin are more effective than other repellents. Repellents containing less than 10 per cent DEET or picaridin are considered safe for children, however the use of topical repellents is



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not recommended for infants under three months of age. It is best to use physical barriers—such as nets on prams and cots—to protect infants less than three months of age. Young children should not apply repellents themselves. Repellents should be applied to the hands of a carer first, and then applied evenly to the child’s exposed skin.

### Around the house

The best way to prevent mosquito-borne diseases is to prevent mosquitoes from breeding. Remove debris and vegetation from storm drains and ditches. Drain areas in and around yards and workplaces where water has accumulated. Empty all containers including buckets, tyres, bird baths and palm fronds weekly to reduce mosquito breeding. Mosquitoes can breed in domestic water tanks, so checking the integrity of water tank screens and replacing damaged screens is a sound prevention measure.



Photography: Queensland Health archive

## Further information:

- Queensland Health  
[www.health.qld.gov.au/disaster](http://www.health.qld.gov.au/disaster)  
[www.health.qld.gov.au/mozziediseases/default.asp](http://www.health.qld.gov.au/mozziediseases/default.asp)  
<http://access.health.qld.gov.au/hid/InfectionsandParasites/ViralInfections/index.asp>
- Read more on insect repellents  
<http://medent.usyd.edu.au/arbovirus/mosquit/mosquitoes.htm>
- 13 HEALTH (13 43 25 84)
- Contact your doctor, hospital or health clinic
- Contact your nearest Queensland Health public health unit.

## Queensland Health public health units:

Brisbane North	Tel: 3624 1111	Darling Downs	Tel: 4631 9888	Mount Isa and Gulf	Tel: 4744 9100
Brisbane South	Tel: 3000 9148	Gold Coast	Tel: 5668 3700	South West	Tel: 4656 8100
Bundaberg	Tel: 4150 2780	Hervey Bay	Tel: 4184 1800	Sunshine Coast	Tel: 5409 6600
Cairns	Tel: 4226 5555	Logan	Tel: 3412 2989	Townsville	Tel: 4753 9000
Central Queensland	Tel: 4920 6989	Mackay	Tel: 4911 0400	West Moreton	Tel: 3413 1200
Central West	Tel: 4652 6000	Moreton Bay	Tel: 3142 1800		