

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

## Fact sheet

### 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. A strain of West Nile virus called Kunjin virus, Zika virus 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 virus, Zika virus and MVE viruses do not develop symptoms. However, those with symptoms typically experience

- fever
- muscle pains
- headaches
- tiredness
- joint pain/swelling.

In rare cases, infection may result in brain inflammation (encephalitis). It is important to seek prompt medical assistance if symptoms are experienced.

### Transmission

Mosquito-borne diseases are transmitted via bites by infective 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 action.

# 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 manufacturer's 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 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 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, bromeliads, 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.

## Further information

- Department of Health <http://www.health.qld.gov.au/disaster>  
<http://www.health.qld.gov.au/mozziediseases/default.asp>
- Read more on insect repellents <http://medent.usyd.edu.au/arbovirus/mosquit/mosquitoes.htm>
- Contact your doctor, hospital or health clinic
- Call 13 HEALTH (13 43 25 84) at any time
- Contact 13 QGOV (13 74 68) for your nearest public health unit.