

# Chikungunya

## What is chikungunya?

Chikungunya is a viral disease which causes joint inflammation and general illness. It is caused by an arbovirus, of the alphavirus family, which also includes Ross River virus and Barmah Forest virus.

## Where is it found?

Chikungunya virus is found mostly in West and East Africa, around the Indian Ocean, Asia, and South East Asia. In 2005/06, there was a very large outbreak around the Indian Ocean, starting in the Comoros before spreading to Reunion, Mauritius, Seychelles, Madagascar and later spreading to India and Java, Indonesia.

The disease occurs mainly in areas of high rainfall. There have only been imported cases of disease in Australia.

The largest incidence of chikungunya in the Northern Territory (NT) was in 2010, when 10 cases were reported from travelers returning from Bali, Indonesia.

## How is it spread?

Humans and other primates are the natural host for chikungunya virus, which is spread by a bite from an infected *Aedes aegypti* or *Aedes albopictus* mosquito. These are the same mosquitoes which can carry the dengue virus. The latter species is present in a number of Torres Strait islands, but is absent from the rest of Australia. *Aedes aegypti* is present in northern Queensland.

Chikungunya virus cannot be spread directly from person to person.

## What are the symptoms?

Symptoms start about 3 to 12 days after infection with the virus. They are flu-like, with fever, chills, and muscular aches. Other symptoms include a sudden severe headache, a flat rash on the arms, legs and trunk, fatigue and nausea or vomiting. The initial symptoms last for about 3 to 5 days, and if rash occurs, it usually lasts about 2 to 3 days.

There is pain or inflammation of the small joints of the hands and feet in about 80% of cases.

Sometimes the joint pains can last for weeks to more than a month. The prolonged joint pain associated with chikungunya is not typical of dengue fever. However, other symptoms can be very like those of dengue fever or Ross River virus disease, so suspect cases will need to have a blood test to check for these and chikungunya antibodies.

Complications involving the eye, heart or nervous system can occur.

## What is the treatment?

There is no vaccine or specific treatment for chikungunya disease. Medicines such as painkillers and anti-inflammatory drugs can be given to help relieve the symptoms.

## How can it be prevented?

The main way to prevent chikungunya in the NT is by preventing the importation, or establishment of the mosquitoes that can carry the virus.

The Medical Entomology Unit conducts exotic mosquito surveillance throughout the NT, and in port and airport areas in cooperation with the Australian Department of Agriculture, Water and the Environment. Sometimes these mosquitoes are imported on overseas vessels or aircraft.

Eggs can be laid in artificial receptacles containing fresh water such as water tanks, buckets, tyres, machinery, pot plant drip trays, or on plastic wrapping that held water, and can be transported into the NT from Queensland or overseas .

## What can be done to reduce mosquito establishment?

### Reduce potential breeding areas

- Empty water containers or keep them out of the rain. Store empty containers upside down.
- Empty pot plant drip trays, bird-baths and pet drinking water once a week and clean thoroughly.
- Screen rainwater and septic tanks and keep covered and sealed.
- Check that roof gutters do not pool water.
- Keep fish ponds stocked with fish.

### Personal protection

- Avoid areas of likely mosquito activity during day and night.
- If accommodation is not well screened, sleep inside mosquito netting. Use insecticide impregnated bed nets and clothing in high risk areas.
- Avoid scents on the body, e.g. perfume, deodorants, and sweat, since these can attract mosquitoes.
- Use protective clothing in outdoor situations including covering feet, legs and arms. Loose, light- coloured clothing is best.
- Use personal repellents containing DEET, picaridin or oil of lemon eucalypt (PMD) on areas of exposed skin in combination with protective clothing.
- Use electric insecticide impregnated vapour pads in indoor or enclosed areas
- Use mosquito coils, or candle heated or gas operated allethrin impregnated pad mosquito protection devices in patio and veranda or relatively sheltered or low wind outdoor situations.

For more information on protection measures see [Personal protection from mosquitoes](#).

## Contact

For information on mosquitoes and virus ecology contact [Medical Entomology at the Centre for Disease Control](#) on 8922 8901.

Centre for Disease Control:

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