

# Chikungunya virus

## What is Chikungunya virus?

Chikungunya virus is an arthropod-borne virus (arbovirus) transmitted principally by mosquitoes. Chikungunya derives from an African Makonde word meaning "that which bends," describing the stooped appearance of persons suffering with the characteristic severe arthralgias.

## Where is it acquired?

Since Chikungunya re-emerged in 2004, millions of cases have occurred throughout countries in and around the Indian Ocean and in Southeast Asia. Transmission has also been documented periodically in temperate areas, such as Italy in 2007 and France in 2010. Large outbreaks have recently been described in Papua New Guinea, Singapore and the Philippines.

## Is there Chikungunya virus in Australia?

There have been no locally acquired cases in Australia described to date, however this remains a theoretical possibility. The vectors for Chikungunya are the *Aedes albopictus* and *Aedes aegypti* mosquitoes. *Aedes aegypti* is present in Northern Australia so there is a theoretical risk of it being introduced into our mosquito population and endemic transmission occurring in the future. *Aedes albopictus* has not yet established itself in Australia.

## What are the symptoms?

The majority of patients with Chikungunya virus infection are symptomatic. The incubation period is typically 3-7 days (range 1-12 days) and the disease is characterised by acute onset of fever and polyarthralgia, with additional symptoms including headache, myalgias, back pain and rash. The polyarthralgia is usually bilateral and symmetric, often involving the distal joints of the extremities, and can be severe and debilitating.

## How is it diagnosed?

The mainstay of diagnosis for Chikungunya virus is serology. Specific IgM antibodies appear late in the first week and peak at 3-5 weeks after the onset of illness, persisting for about two months. IgG antibodies usually appear 2 weeks after onset of symptoms and remain positive indefinitely. PCR testing for the virus can be referred to reference laboratories if the patient presents in the first 7 days of illness.

## What is the treatment?

There is no specific treatment for Chikungunya virus infections and care is based on symptoms. Treatment can include rest and the use of non-steroidal anti-inflammatory drugs (NSAIDs) to relieve the acute pain and fever. Persistent joint pain may benefit from NSAIDs, corticosteroids or physiotherapy.

## How is transmission prevented?

Steps to prevent infection with Chikungunya virus is via preventing against mosquito bites with the use of insect repellent, protective clothing, and mosquito screening.