

Chikungunya Fever Fact Sheet

What is chikungunya fever?

Chikungunya fever is a viral disease transmitted to humans by the bite of infected mosquitoes. Chikungunya virus (CHIKV) is a member of the genus *Alphavirus*, in the family *Togaviridae*. CHIKV was first isolated from the blood of a febrile patient in Tanzania in 1953, and has since been identified repeatedly in west, central and southern Africa and many areas of Asia, and has been cited as the cause of numerous human epidemics in those areas since that time. The virus circulates throughout much of Africa, with transmission thought to occur mainly between mosquitoes and monkeys.

What type of illness does chikungunya virus cause?

CHIKV infection can cause a debilitating illness, most often characterized by fever, headache, fatigue, nausea, vomiting, muscle pain, rash, and joint pain. The term 'chikungunya' is Swahili for 'that which bends up.'

The incubation period (time from infection to illness) can be 2-12 days, but is usually 3-7 days. "Silent" CHIKV infections (infections without illness) do occur; but how commonly this happens is not yet known.

Acute chikungunya fever typically lasts a few days to a couple of weeks, but as with dengue, West Nile fever, o'nyong-nyong fever and other arboviral fevers, some patients have prolonged fatigue lasting several weeks. Additionally, some patients have reported incapacitating joint pain, or arthritis which may last for weeks or months. The prolonged joint pain associated with CHIKV is not typical of dengue. Co-circulation of dengue fever in many areas may mean that chikungunya fever cases are sometimes clinically misdiagnosed as dengue infections, therefore the incidence of chikungunya fever could be much higher than what has been previously reported.

No deaths, neuroinvasive cases, or hemorrhagic cases related to CHIKV infection have been conclusively documented in the scientific literature.

CHIKV infection (whether clinical or silent) is thought to confer life-long immunity.

How do humans become infected with chikungunya virus?

CHIKV is spread by the bite of an infected mosquito. Mosquitoes become infected when they feed on a person infected with CHIKV. Monkeys, and possibly other wild animals, may also serve as reservoirs of the virus. Infected mosquitoes can then spread the virus to other humans when they bite.

Aedes aegypti (the yellow fever mosquito), a household container breeder and aggressive daytime biter which is attracted to humans, is the primary vector of CHIKV to humans. *Aedes albopictus* (the Asian tiger mosquito) may also play a role in human transmission in Asia, and various forest-dwelling mosquito species in Africa have been found to be infected with the virus.

Where does chikungunya virus occur?

The geographic range of the virus is Africa and Asia. For information on current

outbreaks, consult CDC's Travelers' Health website (www.cdc.gov/travel). Given the current large CHIKV epidemics and the world wide distribution of *Aedes aegypti*, there is a risk of importation of CHIKV into new areas by infected travelers.

How is chikungunya virus infection treated?

No vaccine or specific antiviral treatment for chikungunya fever is available. Treatment is symptomatic--rest, fluids, and ibuprofen, naproxen, acetaminophen, or paracetamol may relieve symptoms of fever and aching. Aspirin should be avoided during the acute stages of the illness.

Infected persons should be protected from further mosquito exposure (staying indoors and/or under a mosquito net during the first few days of illness) so that they can't contribute to the transmission cycle.

What can people do to prevent becoming infected with chikungunya virus?

The best way to avoid CHIKV infection is to prevent mosquito bites. There is no vaccine or preventive drug. Prevention tips are similar to those for dengue or West Nile virus:

- Use insect repellent containing an DEET or another [EPA-registered active ingredient](#) on exposed skin. Always follow the directions on the package.
- Wear long sleeves and pants (ideally treat clothes with permethrin or another repellent).
- Have secure screens on windows and doors to keep mosquitoes out.
- Get rid of mosquito breeding sites by emptying standing water from flower pots, buckets and barrels. Change the water in pet dishes and replace the water in bird baths weekly. Drill holes in tire swings so water drains out. Keep children's wading pools empty and on their sides when they aren't being used.
- Additionally, a person with chikungunya fever or dengue should limit their exposure to mosquito bites in order to avoid further spreading the infection. The person should stay indoors or under a mosquito net.