

## Chikungunya

*Chikungunya is a Class B Disease and must be reported to the state within one business day.*

Chikungunya is caused by a mosquito-borne alphavirus indigenous to tropical Africa and Asia, where it causes endemic and epidemic chikungunya fever. Chikungunya is a Makonde word (one of the local languages in Tanzania) meaning ‘that which bends up,’ and describes the symptoms caused by the severe joint pains that usually accompany the infection. Diseases range from asymptomatic infections to undifferentiated febrile illness and to devastating encephalitis. Deaths are rare.

Chikungunya is an arbovirus spread by *Aedes* mosquitoes. Once a mosquito is infected, the virus multiplies inside it over 8 to 10 days, and the mosquito stays infectious for life. Humans are the primary source of the virus. Mosquitoes can become infected by biting an infected person starting one day before their fever begins and until the fever ends. The virus is spread through the mosquito’s bite while feeding. Chikungunya is not spread from person to person. Rarely, it can be passed from a pregnant mother to her baby, and there have been cases of severe illness in newborns due to this type of transmission.

Historical evidence suggests the virus originated in Africa. It was first isolated from the serum of a febrile patient in Tanganyika (now Tanzania) on the east coast of Africa in 1953. From the 1960s through the 1980s, the virus was also isolated in countries across western Africa (including Senegal and Nigeria), central and southern Africa, and in many parts of Asia.

Since its discovery in 1953, numerous outbreaks and epidemics have occurred in both Africa and Southeast Asia, affecting hundreds of thousands of people. Chikungunya is likely more widespread than reported, as its symptoms closely resemble those of dengue fever and the virus often circulates in the same regions. As a result, many chikungunya cases may be mistakenly diagnosed as dengue.

### Clinical

Patients exhibit life-long immunity after having the fever. Serious complications, such as neuroinvasive disease, are rare. The treatment of the fever is supportive.

Most chikungunya patients are symptomatic. The incubation period is from two to four days (range of one to 12 days). The sudden onset is followed by fever (39°C-40°C) and chills which may subside and then return. There may be joint pain (arthralgias), muscle aches (myalgias), low back pain, and headache. Joint pain from chikungunya is often severe, affects multiple joints, and can move from one joint to another. It most commonly affects the hands, wrists, ankles, and feet. The pain is usually worse in the morning, improves with light activity, and gets worse with intense exercise.

A skin rash occurs in about half of cases; the patient becomes flush over the face and trunk followed by a maculopapular type rash. The trunk and limbs are commonly involved; the face, palms and soles may also show lesions. Pruritus or irritation may accompany the eruption. There may be mild headache, mild photophobia and retro orbital pain, but rare conjunctival injection and rare sore throat and pharyngitis on examination may also be present.

In younger patients, the fever lasts from three to seven days with a full recovery usual. The arthralgia is less prominent and short, and a rash less frequent. Infants and younger children show prominent flushing, and early maculopapular or urticarial eruption.

In Asia, the virus has caused a rare hemorrhagic fever, similar to dengue hemorrhagic fever. Some patients have had persistent joint or symptoms for weeks or a month.

## Cases

All cases reported in Louisiana were in individuals who had travelled to a chikungunya-endemic country.

Figure 1. Travel-Associated Chikungunya Cases, Louisiana, 2012-2023

