

## Chikungunya

### What is chikungunya?

The chikungunya virus is an arbovirus, i.e. a virus transmitted by arthropods – in this case mosquitoes. More precisely, chikungunya is an *Alphavirus* from the *Togaviridae* family. It was isolated for the first time in 1953, in Tanzania and Uganda. (As a reminder, the dengue virus, another arbovirus, is a *Flavivirus* from a different family.)

Interhuman transmission occurs through mosquitoes from the genus *Aedes* (*Stegomyia*), in particular *Aedes aegypti*, *Ae. albopictus* and *Ae. polynesiensis*. On Reunion Island, the vector mosquito is *Ae. albopictus*.

### Clinical elements

**Clinical symptoms.** After an incubation period of 4–7 days on average (but which can go from 1 to 12 days), a high fever suddenly appears accompanied by joint pain – which may be severe – mainly affecting the extremities (wrists, ankles, fingers). Myalgia (muscle pain), headaches and maculopapulous rashes also occur. Benign haemorrhages, such as gum bleeding, can appear, especially in children.

**Variable clinical course.** Usually this disease causes no lasting damage, but it may evolve into a chronic phase characterised by persistent joint pain, causing invalidity for several weeks or even several months. During convalescence, which may last several weeks, the patient is plagued by severe fatigue.

**Complications.** Until recently, complicated forms had only rarely been described. However, since March 2005, serious complications have been reported on Reunion Island in a limited number of patients, with, in particular, neonatal and meningoencephalitic problems.

### Diagnosis

Diagnosis can be confirmed through serodiagnosis, gene amplification (RT-PCR) or, less frequently, viral isolation. On average, IgMs are identified as from the fifth day after the appearance of clinical symptoms. Earlier diagnosis can be done through RT-PCR.

### Treatment and prevention

Treatment is symptomatic (analgesics, antipyretics).

Prevention of this infection is carried out on both the individual and community levels. Individual prevention is based on protection against mosquito bites (sprays, creams, coils, electric coils, long clothing, mosquito netting). Community prevention consists of vector control through the destruction of potential larval breeding areas (stagnant water) near dwellings.

### Geographic distribution

This disease is found in Africa, in Southeast Asia and on the Indian subcontinent. In Africa, clinical cases were reported from 1957 to 1974 (Transvaal, Uganda, Congo, Nigeria, Ghana, Southern Rhodesia). Serological surveys also discovered the virus in Senegal, Burkina Faso, the Central African Republic, Cameroon and Guinea-Bissau. It has been reported in Asia, particularly in the Philippines, Malaysia, Cambodia, southern India and Pakistan. In 2005, the disease first affected the Comoros, then Mauritius and Mayotte and, finally, Reunion Island.

### Based on:

*Chikungunya. Aide-mémoire. Institut de Veille Sanitaire, France.*

[http://www.invs.sante.fr/surveillance/chikungunya/am\\_chikungunya.htm](http://www.invs.sante.fr/surveillance/chikungunya/am_chikungunya.htm) Retrieved from the Internet 01 September 2006.

*Chikungunya. Point sur les connaissances et la conduite à tenir. Juillet 2006. Institut de Veille Sanitaire, France. [http://www.invs.sante.fr/surveillance/chikungunya/fiche\\_chikungunya.pdf](http://www.invs.sante.fr/surveillance/chikungunya/fiche_chikungunya.pdf)*  
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