

Key aspects briefly summarized

- Chikungunya is a viral disease transmitted by Aedes mosquitoes.
- Chikungunya can be prevented by protection against mosquito bites.
- It typically presents with severe joint pain of the hands and feet. In a few patients, these may persist for weeks or months.

Disease

Chikungunya is caused by the chikungunya virus, which was first described in 1952 in Tanzania. The name is believed to come from a local African language, meaning 'to become bent over', and refers to the posture of affected persons who lean on walking sticks due to severe joint pain.

Occurrence / Risk areas

Indian subcontinent, South-East Asia and Pacific islands, Central and South America, Caribbean islands, Sub-Sahara Africa, Arabian peninsula. In Europe, cases are mainly imported from endemic countries. However, local transmission has occurred in 2007, in 2014, and in 2017 (Italy and France).

Transmission

The chikungunya virus is transmitted through the bite of Aedes mosquitoes, which predominantly bite humans during daytime.

Symptoms



A 19-year-old Indian lady with chikungunya, South India. Her finger and foot joints were swollen and very painful (photo by C. Staehelin).

The infection may present with some or all of the following symptoms: sudden onset of high-grade fever, chills, headache, redness of eyes, muscle and joint pain, and rash. The rash usually occurs after the onset of fever and typically involves the trunk and extremities, but can also include the palms, soles of the feet, and the face.

Often fever occurs in two phases of up to one week duration, with an interval of one to two fever-free days in between. The second phase may present with much more intense muscle and joint pain, which can be severe and debilitating. These symptoms are typically bilateral and symmetric and mainly involve hands and feet, but may also involve the larger joints, such as the knees or shoulders.

About 5-10% of infected people continue to experience severe joint pain even after the fever has subsided, in some cases lasting up to several months or,

albeit rare, even years.

Diagnosis

Diagnosis can be confirmed by blood tests: PCR in the first week of symptoms or serology (antibody measurement) from the second week of illness.

Treatment

There is no treatment against the virus itself, only symptomatic treatment for the joint pain (anti-inflammatory drugs).

Prevention

Mosquito bite prevention during the daytime (when Aedes mosquitoes are active): repellants on uncovered skin; wearing long clothes; treating clothes with insecticide. A further very important protective factor is the so called 'environmental hygiene', meaning preventing the occurrence of breeding sites for mosquitoes within close proximity of human housing by eliminating all forms of recipients containing water.

Further Information / References

FOPH CH: <https://www.bag.admin.ch/bag/de/home/krankheiten/krankheiten-im-ueberblick/chikungunya.html>

WHO - Chikungunya factsheet: <https://www.who.int/news-room/fact-sheets/detail/chikungunya>

Center for Disease Control and Prevention (CDC): <https://www.cdc.gov/chikungunya/index.html>