

Chikungunya Fever

Chikungunya is a viral disease transmitted by the bite of an infected *Aedes aegypti* mosquito, the species of mosquito that also transmits dengue fever and is pervasive in the Caribbean.

The disease was first detected in Tanzania in 1952, but has now spread to other countries in Africa, Asia, and more recently Europe, affecting millions.

The name 'Chikungunya' is derived from a word in the Kimakonde language (spoken by an ethnic group in Tanzania and Mozambique) which means "to become contorted". It describes the stooped appearance of sufferers with joint pain.

Signs and symptoms

Chikungunya is characterized by an abrupt onset of high fever (typically above 38.5°C), frequently accompanied by joint pain. This usually occurs within 3-7 days (range 1-12 days) after being bitten by an infected mosquito.

The joint pain tends to be worse in the morning. Ankles, wrists and small joints of the hand are more likely to be affected, but the spine and larger joints like knee and shoulder can also be involved. Quite often, multiple joints are affected, with the pain commonly accompanied by swelling and accumulation of fluid. Additional signs and symptoms include muscle pain, headache, nausea, fatigue, and skin rash.

Most affected individuals make a full and complete recovery within 1 to 3 weeks; but a few persons progress to persistent joint pain for months and on rare occasions, even years. Occasional eye, neurological, skin and heart complications have also been reported.

Who can be infected?

While Chikungunya can affect anyone, older persons and those with underlying rheumatic and traumatic joint disorders seem to be more vulnerable to developing the chronic joint complications. When the disease is newly introduced in a country there will be a large susceptible

Key Facts

- Chikungunya is a viral disease transmitted by the bite of an infected *Aedes aegypti* mosquito, the species of mosquito that also transmits dengue fever and is pervasive in the Caribbean.
- Chikungunya patients experience sudden high fever often accompanied by joint pain.
- Since Chikungunya shares some of the signs and symptoms of dengue fever, clinicians must be alert to the possibility of misdiagnosis in countries where both diseases are occurring.
- In December 2013, the Pan American Health Organization / World Health Organization was notified of two laboratory-confirmed cases of locally-acquired Chikungunya disease in St Martin.
- This was the first time that locally-acquired cases have been detected in the Caribbean. In the Americas, imported cases had previously been reported from Brazil, Canada, French Guyana, Guadeloupe, Martinique and the United States of America.

population. Consequently, there is a likelihood of widespread outbreaks affecting large numbers of persons. Death from Chikungunya, though rare, can occur, and is more likely in older adults.

Danger signs

Persons suspected of having Chikungunya and meeting the following criteria should always be referred for medical attention:

- ✓ Fever lasting for more than five days
- ✓ Severe and unrelenting joint pains
- ✓ Dizziness or fainting
- ✓ Cold extremities
- ✓ Decreased urine output
- ✓ Any bleeding under the skin or through any orifice
- ✓ Excessive or prolonged vomiting
- ✓ Pregnancy
- ✓ Newborn babies
- ✓ Elderly

Treatment and prevention

There is currently no vaccine, cure or specific treatment for Chikungunya. Patient care is generally focused on providing comfort through relief of symptoms. Medicines for reducing fever and pain such as acetaminophen, (commonly marketed as paramol, panadol, paracetamol etc.,) may therefore be used. Aspirin, which is also used to treat pain and fever, should however be avoided, due to concerns of haemorrhage and Reye's syndrome, (a potentially serious condition which is associated with the use of aspirin in viral illnesses).

Since Chikungunya is spread similarly to dengue fever, common prevention and control measures revolve around limiting opportunities for mosquitoes to bite people. The *Aedes aegypti* mosquitoes can live either indoors or outdoors; and will bite throughout daylight hours with peaks activity levels in the early morning and late afternoon. The strategies outlined in the box below can be used to reduce the risk of contracting Chikungunya and/or dengue fever.

To Prevent Chikungunya and Dengue Fever

The best protection is to avoid being bitten.

To prevent mosquito breeding in and around your home:

- ✓ Inspect in and around your home at least once weekly, searching for, and eliminating all possible sources of mosquito breeding.
- ✓ Clean up and de-bush back yards and vacant lots, disposing of any refuse which can hold water – e.g., discarded styrofoam containers, plastic bags, bottle caps, cups, bottles, cans, etc.
- ✓ Organise a drive to assist elderly or incapacitated neighbours with cleaning up nearby lots.
- ✓ Bore holes in receptacles which are stored outdoors to drain away rain water or cover them up – e.g., barrels, buckets, tyres, garbage cans, cement bricks.
- ✓ Completely cover and seal waste water wells, soak-aways, grease traps, septic tanks etc., to prevent access by mosquitoes.
- ✓ Clean the feeding containers of your domestic animals and change drinking water at least once daily.
- ✓ Drain excess water from house plants and avoid over watering.
- ✓ Change water in flower vases at least on alternate days; scrub and thoroughly clean inner surfaces to ensure removal of difficult to spot mosquito eggs.
- ✓ Clean, clear and maintain roof gutters and drainage pipes on a regular schedule to avoid stagnation of water.
- ✓ Flush unused or infrequently used toilets at least twice weekly; plug the drainage outlets of unused showers stalls and sinks.
- ✓ Treat pools of outdoor stagnant water with a recommended oil or chemical.
- ✓ Find out from your landlord or realtor if your home has an underground or hidden water storage facility; check for mosquito breeding and treat appropriately.

For personal protection:

- ✓ Use mosquito repellents and / or insecticides
- ✓ Cover exposed skin with long sleeves and pants especially at dawn and dusk
- ✓ Use mesh netting on all windows and doors.
- ✓ Use insecticide-treated bed nets to cover sleeping babies and weak or elderly persons. Anyone with fever from suspected or confirmed mosquito borne illness should also use a bed net.