CONDITION

CHIK

Learn about chikungunya (CHIK), including mosquito transmission, fever and joint pain, testing, supportive treatment, possible complications, and when to seek care.

WHAT IT IS
Mosquito-borne viral illness

BODY SYSTEM
Whole body and joints

MAIN SYMPTOMS
Sudden fever, joint pain, rash, tiredness

WHAT CAUSES IT
Viral infection spread by mosquitoes

HOW IT IS DIAGNOSED
Blood PCR or antibody testing

MAIN TREATMENT
Supportive care

CAN IT BE CURED?
No, no specific antiviral treatment exists

IS IT AN EMERGENCY?
Sometimes, with severe dehydration or rapid worsening

LONG-TERM OUTLOOK
Most recover but joint pain may persist or recur

Overview

CHIK commonly refers to chikungunya , an illness caused by the chikungunya virus, or CHIKV. The virus spreads mainly through the bite of an infected Aedes mosquito. These mosquitoes also transmit dengue and Zika viruses.

Chikungunya often causes a sudden fever and significant pain in several joints. The name comes from a word describing the bent posture that severe joint pain can produce. Most people recover from the initial illness, but joint pain may continue or return for weeks, months, or occasionally longer.

The infection occurs in parts of Africa, Asia, the Americas, the Caribbean, the Pacific, and the Indian Ocean region. Outbreak locations change over time. Local transmission can also occur in other places when mosquitoes become infected after biting a traveler who has the virus.

Chikungunya is usually not spread directly from one person to another through touching, coughing, sharing food, or routine household contact. However, a person with the virus in their blood can infect a mosquito. That mosquito may then spread the virus to someone else.

Chikungunya matters because its early symptoms can resemble dengue, malaria, Zika, and other infections. Some of these illnesses need different monitoring or treatment. A clinician should consider recent travel, mosquito exposure, local outbreaks, symptoms, and laboratory testing rather than relying on symptoms alone.

Symptoms

Symptoms commonly begin about 3 to 7 days after the bite of an infected mosquito, although the timing can vary. Some infected people have mild symptoms or none at all.

Typical symptoms include:

Joint pain may affect both sides of the body and can make walking, gripping objects, or completing daily tasks difficult. The pain may be more intense than the joint symptoms seen with many other short viral illnesses.

Fever and other acute symptoms often improve within about a week. Joint stiffness and pain may improve more slowly. In some people, these symptoms disappear and later return. Persistent symptoms may affect sleep, work, exercise, and emotional well-being.

Seek prompt medical advice for a fever after travel to an area where chikungunya, dengue, or malaria occurs. This is especially important during pregnancy, for an infant, for an adult age 65 or older, or for someone with diabetes, high blood pressure, heart disease, or another significant medical condition.

Get urgent or emergency care for symptoms such as:

These symptoms are not typical of an uncomplicated chikungunya infection. They may indicate severe dehydration, dengue, malaria, or another condition requiring rapid assessment.

- Sudden fever
- Pain in multiple joints, often affecting the hands, wrists, ankles, or feet
- Joint swelling or stiffness
- Muscle pain
- Headache
- Tiredness

- A red or spotty skin rash
- Nausea
- Trouble breathing, chest pain, fainting, or severe weakness
- Confusion, unusual sleepiness, or a seizure
- Severe abdominal pain or repeated vomiting
- Inability to drink or signs of serious dehydration, such as very little urine
- Bleeding from the nose or gums, vomiting blood, or black stools
- Cold or clammy skin, rapidly worsening illness, or difficulty waking
- Poor feeding, marked sleepiness, breathing problems, or fewer wet diapers in an infant

Causes and risk factors

Chikungunya is caused by infection with CHIKV. The main carriers are Aedes aegypti and Aedes albopictus mosquitoes. They tend to bite during the day, although bites can also occur around dawn, dusk, and in well-lit areas at night.

A mosquito becomes infected after biting a person who has the virus circulating in their blood. After the virus develops inside the mosquito, it can pass to another person through a later bite.

Risk is higher for people who live in or travel to an area with current chikungunya transmission. Risk also depends on the number of infected mosquitoes, access to window screens or air conditioning, use of insect repellent, and time spent outdoors.

Most transmission occurs through mosquito bites. Less common forms of transmission include exposure to infected blood and transmission from a pregnant person to a baby around the time of delivery. Infection earlier in pregnancy does not usually pass to the fetus, but any fever during pregnancy deserves medical advice.

People more likely to develop severe disease or need closer monitoring include newborns infected around birth, adults age 65 or older, and people with conditions such as diabetes, high blood pressure, or cardiovascular disease. Anyone who is dehydrated or medically frail may also have more difficulty coping with a high fever.

Diagnosis

A clinician begins by asking about symptoms, recent travel, mosquito bites, outbreak exposure, pregnancy, medical conditions, and medicines. An examination may look for fever,

rash, swollen joints, dehydration, bleeding, or signs involving the nervous system, heart, eyes, or other organs.

Symptoms alone cannot reliably confirm chikungunya. Dengue can cause a similar fever, rash, headache, and body pain. Malaria may also need to be ruled out after travel to certain areas. Testing for more than one infection may therefore be appropriate.

Laboratory testing depends on how long symptoms have been present. During approximately the first week, a nucleic acid amplification test, often called PCR, can look for the virus's genetic material in blood. Later, blood tests can look for antibodies made by the immune system in response to infection.

Antibody results need careful interpretation. A test may be negative if performed too early. A positive screening result sometimes requires confirmation because related viruses can cause cross-reactions. Previous exposure and the timing of the sample also matter.

Routine blood tests may help assess hydration, blood cell counts, liver function, kidney function, or other possible causes of illness. These results do not confirm chikungunya by themselves.

Treatment and management

There is no specific antiviral treatment that has been shown to eliminate chikungunya virus. Care focuses on easing symptoms, maintaining hydration, and watching for complications or another infection.

Rest and regular fluids are important during fever. A clinician may recommend acetaminophen for pain or fever when it is appropriate for the patient. Medicine labels should be followed, and combination cold or pain products should be checked because more than one product may contain acetaminophen.

Aspirin and nonsteroidal anti-inflammatory drugs like ibuprofen or naproxen , or NSAIDs, are generally avoided until dengue has been ruled out. Examples of NSAIDs include ibuprofen and naproxen. Dengue can increase bleeding risk, and these medicines may add to that risk. Aspirin should not be given to children or teenagers with a viral illness unless a clinician specifically directs its use.

After dengue has been excluded, a clinician may consider an anti-inflammatory medicine for continuing joint pain. The choice depends on age, pregnancy, kidney function, stomach or bleeding problems, cardiovascular health, and other medicines. This decision should be individualized rather than based only on the suspected infection.

Gentle movement may help prevent stiffness as the fever improves. Activity should increase

gradually. If joint symptoms continue, physical therapy may help with range of motion, muscle strength, pacing, and safe return to daily activities.

Some people develop ongoing inflammatory arthritis, meaning persistent joint swelling and inflammation. A primary care clinician may refer them to a rheumatologist, a doctor who treats joint and immune-system disorders. Treatment may include medicines used for inflammatory arthritis, but these require medical supervision and a clear diagnosis.

During the first week of illness, avoiding additional mosquito bites helps prevent the virus from spreading to local mosquitoes. Useful steps include applying an appropriate insect repellent, wearing long sleeves and trousers, using window screens or air conditioning, and sleeping under a mosquito net when needed. Household members should also reduce mosquito exposure and empty containers holding standing water.

Chikungunya vaccines are available in some countries for selected people, including certain travelers or laboratory workers. Availability, age limits, safety information, and public health recommendations can change. A travel medicine clinician can review the current outbreak situation and whether vaccination is appropriate well before departure. Vaccination does not replace protection against mosquito bites.

Complications

The most common longer-term problem is persistent or recurring joint pain. Some people have swelling, morning stiffness, or reduced movement that resembles inflammatory arthritis. Symptoms may interfere with work, walking, exercise, sleep, or caring for others.

Serious complications are uncommon, but they can occur. Reported problems include inflammation affecting the brain or its surrounding tissues, nerves, heart, liver, kidneys, or eyes. Severe dehydration can also develop when fever, nausea, or weakness makes drinking difficult.

Newborns infected around delivery can become seriously ill and need close hospital monitoring. Older adults and people with significant underlying conditions may also have a higher risk of organ complications or a slower recovery.

Bleeding and shock are more characteristic of severe dengue than of uncomplicated chikungunya. Because the two infections can look alike at first, new bleeding, severe abdominal pain, repeated vomiting, or rapid worsening requires urgent assessment rather than an assumption that chikungunya is the cause.

Follow up

Routine follow-up is reasonable if fever does not improve as expected, joint symptoms limit normal activities, or pain and swelling continue after the acute illness. Follow-up can also review test results and make sure another infection or type of arthritis has not been missed.

Contact a clinician sooner if symptoms worsen after initially improving, a new rash or medicine reaction appears, fluid intake becomes difficult, or urine output decreases. Pregnant people, infants, older adults, and those with major chronic illnesses may need earlier review.

For persistent joint symptoms, keeping a brief record can help. Note which joints are affected, whether they are swollen, how long morning stiffness lasts, and which activities have become difficult. A clinician may recommend rehabilitation, further testing, or specialist care based on the pattern.

Recovery time varies. Gradual improvement is common, but it is reasonable to ask for help when pain, fatigue, sleep problems, or reduced mobility continue to affect everyday life.

Sources

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