# Chagas Disease

Chagas disease is an infection caused by the parasite Trypanosoma cruzi. Worldwide, it is estimated that 16 to 18 million people are infected with Chagas disease. Of those infected, 50,000 will die each year. Chagas disease is also called American trypanosomiasis.

Many people get the infection during childhood. Usually, the early stage of infection is not considered severe. However, sometimes the disease can cause death, particularly in infants. For about one-third of the persons who get Chagas disease, *chronic* (long lasting) symptoms develop 10-20 years after infection. For those who develop chronic symptoms, the average life expectancy decreases by an average of 9 years.

## CAUSES

Chagas disease is locally transmitted in:

- Argentina.
- Belize.
- Bolivia.
- Brazil.
- Colombia.
- Costa Rica.
- Ecuador.
- El Salvador.
- French Guiana.
- Guatemala.
- Guyana.
- Honduras.
- Mexico.
- Nicaragua.
- Panama.
- Paraguay.
- Peru.
- Suriname.
- Venezuela.

It is sometimes transmitted in the United States.

Chigas disease is transmitted by triatomine bugs (or “kissing” bugs). These bugs live in cracks and holes of substandard housing from the southern United States to southern Argentina. The blood sucking bugs are primarily found in Central and South America and Mexico. Triatomine (sometimes also called reduviid) bugs become infected after biting an animal or person, who is already infected with the parasite.

People who regularly sleep in poorly constructed houses found in the rural areas of Central and South America are most likely to become infected. Houses constructed from mud, adobe, or thatch are more likely than others to be infested with triatomine bugs.

**People can become infected with Chagas by:**

- Unknowingly touching their eyes, mouth, or open cuts after having come into contact with infective triatome bug feces.
- Bugs directly depositing infected feces into their eyes.
- Eating uncooked food contaminated with triatome bug feces.
- Receiving infection from their mother during pregnancy or at birth.
- Receiving an infected blood transfusion or organ transplant.
- Animals can become infected in the same way, or they might eat an infected bug.

Blood transfusion recipients are at risk. Blood is not screened for Chagas. Travelers planning to stay in hotels, resorts, or other well-constructed housing facilities are not at high risk for getting Chagas disease.

## SYMPTOMS

There are three stages of infection in Chagas disease. Each stage has different symptoms. On one extreme, some persons may be infected and never develop symptoms. On the other extreme, in people who have weakened immune systems, such as those with HIV/AIDS, the symptoms of Chagas disease can be severe.

**Acute stage:**

Acute symptoms only occur in about 1 percent of cases (one in a hundred). The most recognized symptom of acute Chagas infection is the Romaña's sign. This is when a person's eye on one side of the face swells. The swelling usually occurs at the bite wound or where feces were deposited or accidentally rubbed into the eye. Other symptoms that are not unique to Chagas disease may include:

- Fatigue, fever, enlarged liver or spleen.

- Swollen lymph glands.
- Sometimes a person develops a rash, loss of appetite, diarrhea, and vomiting. In infants and in very young children with acute Chagas disease, the brain may be damaged severely enough to cause death. In general, a person's symptoms last from 4 to 8 weeks and then they go away, even without treatment.

**Indeterminate stage:**
Eight to 10 weeks after infection, the indeterminate stage begins and may last for many years. During this stage, people do not have any symptoms.

**Chronic stage:**
Occurs 10 to 30 or 40 years after infection. 20-30% of infected people may develop the most serious symptoms of Chagas disease, such as:
- Cardiac problems, including an enlarged heart.
- An altered heart rate or rhythm.
- Heart failure.
- Cardiac arrest.
- Enlargement of the esophagus which results in problems with swallowing or severe constipation.
- Enlargement of the large bowel which results in severe constipation.

Not everyone with Chagas disease will develop the chronic-stage symptoms.

Symptoms of Chagas disease may begin within a few days to a few weeks after infection. Most people do not have symptoms until the chronic stage of infection.

## DIAGNOSIS
If you think you might have Chagas disease, see your health care provider. He/she will order blood tests to look for the parasite or for antibodies in your blood.

## TREATMENT
Medication for Chagas disease is usually effective when given during the early acute stage of infection. Once the disease has progressed to later stages, medication may be less effective. In the late chronic stages of infection, treatment focuses on managing the symptoms associated with the disease.

## PREVENTION
You can prevent Chagas disease if you:
- Avoid sleeping in thatch, mud, or adobe houses.
- Use insecticides to kill bugs and reduce the risk of transmission.
- Remain aware that, in some countries, the blood supply may not always be screened for Chagas disease and blood transfusions may carry a risk of infection.

There is neither a vaccine nor recommended drug available to prevent Chagas disease.

*Information courtesy of the CDC, Division of Parasitic Diseases.*

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