

## **Chagas' Disease (SHA-gus)**

### **What is Chagas disease?**

Also called American trypanosomiasis (tri-PAN-o-SO-my-a-sis), Chagas disease is an infection caused by the parasite *Trypanosoma cruzi*. It is estimated that 16-18 million people in Central and South America are infected with Chagas disease; of those infected, 50,000 will die each year.



### **How is Chagas disease spread?**

Reduviid bugs, or "kissing bugs" live in cracks and holes of substandard housing found in South and Central America. Insects become infected after biting an animal or person who already has Chagas disease. Infection is spread to humans when an infected bug deposits feces on a person's skin, usually while the person is sleeping at night. The person often accidentally rubs the feces into the bite wound, an open cut, the eyes, or mouth. Animals can become infected the same way, and they can also contract the disease by eating an infected bug.

### **How can I become infected?**

1. By infective feces contacting your eyes, mouth, or open cuts.
2. By infected mothers passing infection to their baby during pregnancy, at delivery, or while breastfeeding.
3. By blood transfusion or organ transplant.
4. By eating uncooked food contaminated with infective feces of "kissing bugs."

### **Is Chagas disease a serious illness?**

Yes. Chagas disease primarily affects low income people living in rural areas. Many people get the infection during childhood. The early stage of infection (acute Chagas disease) usually is not severe, but sometimes it can cause death, particularly in infants. However, in about one-third of those who get the infection, chronic symptoms develop after 10-20 years. For these persons who develop chronic symptoms, the average life expectancy decreases by an average of 9 years.

## **What are the symptoms of Chagas disease?**

There are three stages of infection with Chagas disease; each stage has different symptoms. Some persons may be infected and never develop symptoms.

**Acute:** Acute symptoms only occur in about 1% of cases. Most people infected do not seek medical attention. The most recognized symptom of acute Chagas infection is the Romaña's sign, or swelling of the eye on one side of the face, usually at the bite wound or where feces were rubbed into the eye. Other symptoms are usually not specific for Chagas infection. These symptoms may include fatigue, fever, enlarged liver or spleen, and swollen lymph glands. Sometimes, a rash, loss of appetite, diarrhea, and vomiting occur. In infants and in very young children with acute Chagas disease, swelling of the brain can develop in acute Chagas disease, and this can cause death. In general, symptoms last for 4-8 weeks and then they go away, even without treatment.

**Indeterminate:** Eight to 10 weeks after infection, the indeterminate stage begins. During this stage, people do not have symptoms.

**Chronic:** Ten to 20 years after infection, people may develop the most serious symptoms of Chagas disease. Cardiac problems, including an enlarged heart, altered heart rate or rhythm, heart failure, or cardiac arrest are symptoms of chronic disease. Chagas disease can also lead to enlargement of parts of the digestive tract, which result in severe constipation or problems with swallowing. In persons who are immune compromised, including persons with HIV/AIDS, Chagas disease can be severe. Not everyone will develop the chronic symptoms of Chagas disease.

## **How soon after infection will I have symptoms of Chagas disease?**

Symptoms may occur within a few days to weeks. Most people do not have symptoms until the chronic stage of infection, 10-20 years after first being infected.

## **Can I take medication to prevent Chagas disease?**

No. There is neither a vaccine nor recommended drug available to prevent Chagas disease.

## **What should I do if I think I have Chagas disease?**

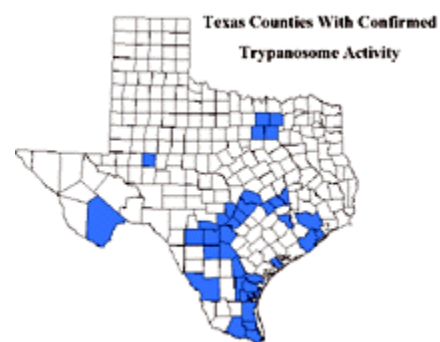
See your health care provider who will order blood tests to look for the parasite or for antibodies in your blood.

## **What is the treatment for Chagas disease?**

Medication for Chagas disease is usually effective when given during the acute stage of infection. Once the disease has progressed to later stages, no medication has been proven to be effective. In the chronic stage, treatment involves managing symptoms associated with the disease.

## **Where can I contract Chagas disease?**

Chagas disease is locally transmitted in Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, French Guiana, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Uruguay, and Venezuela. In Texas, the last human case of Chagas disease was reported in the early 80's, however cases in domestic dogs are reported each year. The map on right indicates those Texas counties which have either reported Chagas disease in humans, dogs, or have had "kissing bugs" that the Texas Department of Health Laboratory has found to be positive for the organism.



## **Who is at risk for Chagas disease?**

Those people who sleep in poorly constructed houses found in the rural areas of the above-mentioned countries are at elevated risk of infection. Houses constructed from mud, adobe, or thatch present the greatest risk.

Travelers to Central and South America who are planning to stay in hotels, resorts, or other well-constructed housing facilities are NOT at high risk for contracting Chagas' disease from reduviid bugs.

## **How can I prevent Chagas disease?**

1. Avoid sleeping in thatch, mud, or adobe houses.
2. Use bed nets if sleeping in mud or thatch houses.
3. Use insecticides to kill insects and reduce the risk of transmission.
4. Be 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.