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## **Frequently Asked Questions: Chagas Disease**

### **What is Chagas Disease?**

Chagas disease, also known as American trypanosomiasis is caused by the parasite *Trypanosoma cruzi*, which is transmitted to animals and people by insect vectors that are found only in the Americas. **Rare cases of Chagas disease have been acquired in the southern United States.**

It is estimated that as many as 8 million people in Mexico, Central America, and South America have Chagas disease as of 2013. Most people who have Chagas disease do not realize they are infected. Chagas disease has an acute and a chronic phase. If untreated, infection is lifelong.

### **How do people get Chagas disease?**

People can become infected in various ways. In Chagas disease-endemic areas, the main way is through vectorborne transmission, specifically, triatomine bugs. These blood-sucking bugs get infected by biting an infected animal or person. Once infected, the bugs pass *T. cruzi* parasites in their feces.

The bugs are found in houses made from materials such as mud, adobe, straw, and palm thatch. During the day, the bugs hide in crevices in the walls and roofs. During the night, when the inhabitants are sleeping, the bugs emerge. Because they tend to feed on people's faces, triatomine bugs are also known as "kissing bugs." After they bite and ingest blood, they defecate on the person. The person can become infected if *T. cruzi* parasites in the bug feces enter the body through mucous membranes or breaks in the skin. The unsuspecting, sleeping person may accidentally scratch or rub the feces into the bite wound, eyes or mouth. **It is important to note that not all triatomine bugs are infected with Chagas disease.**

People also can become infected through:

- congenital transmission (from a pregnant woman to her baby);
- blood transfusion;
- organ transplantation;
- consumption of uncooked food contaminated with feces from infected bugs; and
- accidental laboratory exposure.

It is generally considered safe to breastfeed even if the mother has Chagas disease. However, if the mother has blood in the breast milk, she should pump and discard the milk until the bleeding resolves. Chagas disease is not transmitted from person-to-person like a cold or the flu or through casual contact with infected people or animals.

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

There are two phases of Chagas disease: the **acute phase** and the **chronic phase**.

The **acute phase** lasts for the first few weeks or months of infection. It usually occurs unnoticed because the infected person may be symptom-free or exhibit only mild symptoms and signs that are not unique to Chagas disease.

Symptoms can include:

- fever
- fatigue
- body aches
- headache
- rash
- loss of appetite, diarrhea, and vomiting

The most recognized marker of acute Chagas disease is called Romaña's sign, which includes swelling of the eyelids on the side of the face near where the bug feces were deposited accidentally rubbed into a bite wound or the eye. Even if symptoms develop during the acute phase, they usually fade away on their own within a few weeks or months. Although the symptoms resolve, if untreated the infection persists. Although rare, infection can be fatal for young children from severe inflammation/infection of the heart muscle (myocarditis) or brain (meningoencephalitis). The **acute phase** also can be severe in people with weakened immune systems.

During the **chronic phase**, the infection may remain silent for decades or even for life. However, some people develop:

- **cardiac complications**, which can include an enlarged heart (cardiomyopathy), heart failure, altered heart rate or rhythm, and cardiac arrest (sudden death); and/or
- **gastrointestinal complications**, which can include an enlarged esophagus (megaesophagus) or colon (megacolon) and can lead to difficulties with eating or with passing stool.

The average life-time risk of developing one or more of these complications is about 30 percent.

### **Is there treatment for Chagas disease?**

Chagas disease is diagnosed by blood tests. If you are found to have Chagas disease, your health care provider will likely recommend some additional tests to evaluate your heart and general health even if you feel fine. They will also consult with the CDC to determine the best treatment for you.

There are two approaches to therapy:

- **antiparasitic** treatment, to kill the parasite; and
- **symptomatic** treatment, to manage the symptoms and signs of infection.

**Antiparasitic treatment** is most effective early in the course of infection but is not limited to cases in the acute phase. In the United States, this type of treatment is available through CDC.

**Symptomatic treatment** may help people who have cardiac or gastrointestinal problems from Chagas disease. For example, pacemakers and medications for irregular heartbeats may be life saving for some patients with chronic cardiac disease.

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

No drugs or vaccines for preventing infection are currently available. Travelers to rural areas of Latin America who sleep indoors, in well-constructed facilities (for example, air-conditioned or

screened hotel rooms) are at low risk for exposure to infected triatomine bugs, which infest poor-quality dwellings and are most active at night.

Preventive measures include:

- Spraying infested dwellings with residual-action insecticides;
- Using bed nets treated with long-lasting insecticides; and
- Wearing protective clothing and applying insect repellent to exposed skin.

In addition, travelers should be aware of other possible routes of transmission, including bloodborne and foodborne.

To keep triatomine bugs and other pests out of your home, plaster interior walls or ceilings to cover cracks, screen doors and windows and remove wood, brush and rock piles near the home. Bugs found inside are typically hiding near pet resting areas or in areas of rodent infestation. If you suspect you have a triatomine bug infestation, contact a professional pest control operator.

For more information about Chagas disease, please visit [http://www.cdc.gov/parasites/chagas/gen\\_info/vectors/index.html](http://www.cdc.gov/parasites/chagas/gen_info/vectors/index.html) and [http://www.cdc.gov/parasites/chagas/gen\\_info/detailed.html](http://www.cdc.gov/parasites/chagas/gen_info/detailed.html).