



CHAGAS DISEASE (Veterinary) FACT SHEET

What is Chagas disease?

Chagas disease is caused by the parasite *Typanosoma cruzi* and is also referred to as American typanosomiasis. It is transmitted to animals and people by insect vectors. It is only found in the Americas, from the U.S. to Chile and central Argentina. In the U.S., the parasite is thought to be endemic in the southern half of the country, as well as California. If untreated, infection is lifelong and can be life threatening. According to the Centers for Disease Control and Prevention, it is estimated that 8-11 million people in Mexico, Central America and South America have Chagas disease.

How is the disease spread?

The infection is most commonly acquired through contact with feces of infected triatomine insects, which are also known as “reduviid insects”, “kissing bugs”, or “assassin bugs”. The insect defecates as it feeds and the parasite generally enters the body through the insect’s bite wound. Infection can also occur from:

- mother-to-baby
 - transplacental
 - transmammary (rare)
- contaminated blood products (transfusions)
- organ transplants from an infected donor
- laboratory accident, or
- contaminated food or drink (rare)

Many species of animals can infect the insect responsible for carrying Chagas disease.

How does the disease affect people?

Chagas disease has an acute phase and a chronic phase and both phases can be asymptomatic or life-threatening. People may begin showing symptoms 5-14 days after exposure to infected insect feces and 20-40 days after infection by blood transfusion.

Most people are asymptomatic during the acute phase which can last for a few weeks or months. If symptoms are present, they are variable and can include fever, headache, loss of appetite, joint pain, weakness, nausea, vomiting, diarrhea, enlarged lymph nodes, liver enlargement and spleen enlargement.

In some cases, a chagoma (localized painless inflammation) is seen where the parasite entered the skin. If the parasite enters the host through the mucous membranes of the eyes, one or both eyes may become infected resulting in periorbital swelling and lymph node enlargement. This syndrome is called Romaña’s sign and can persist for 1-2 months. In most cases, symptoms resolve within weeks to months without treatment. However, the infection will persist, if left untreated

The acute phase can be severe in immunocompromised people and although rare, death can occur in children due to myocarditis and meningoencephalitis.

The chronic phase of infection may remain silent for years or even for life. It typically occurs 5 to 40 years after exposure. During this phase, cardiac (cardiomyopathy, heart failure, cardiac arrest) and intestinal complications (megaesophagus or megacolon) can occur.

Infected pregnant women can give birth to infected children. Persons with weakened immune systems and the elderly are at a higher risk for complications.

What are the signs of Chagas disease in animals?

Chagas disease occurs in more than 100 species of mammals in the Americas. In the U.S., frequent hosts include armadillos, coyotes, cats, dogs, mice, opossums, raccoons, rats and squirrels.

The incubation period in dogs appears to be 5-42 days. Signs reported in the acute stage include anorexia, fever, lethargy, unkempt hair coat, enlarged lymph nodes, liver enlargement, spleen enlargement, diarrhea, and weight loss. After the initial phase, infected dogs enter the latent or indeterminate phase, which can be as short as 27 days or last for years. During this phase, the parasites can be difficult to visualize on a blood smear and the animal is asymptomatic. The animal then enters the chronic phase where congestive heart failure is the most common sign. Right-sided heart failure typically occurs first and is followed by chronic myocarditis. Sudden death can also occur.

Signs of disease have rarely been seen in cats, but reported signs include fever, weight loss, fluid retention and neurological signs (paralysis, convulsions). There is little information about Chagas disease in other animals.

How can I prevent infection?

To decrease your risk of Chagas disease:

- Eliminate cracks and crevices in and around your home that might allow the insect to enter into or hide within the home.
- Spray insecticides regularly in and around homes to reduce or eliminate the number of insect vectors.
- House pets indoors at night, since triatomine insects feed primarily at night.
- Do not allow dogs and cats to eat tissues from potentially infected wild animals.
- When visiting areas where Chagas disease is common, sleep inside a screened area, under a permethrin-impregnated net or in an air-conditioned room.

If you think you may be infected with Chagas disease, call your doctor and mention any contact you have had with triatomine insects, and recent visits to Latin, Central or South America.

Where can I get more information on Chagas disease?

www.cdc.gov

www.cfsph.iastate.edu

Source of Information

Centers for Disease Control and Prevention (CDC)