



The parasite that causes Chagas disease is transmitted through the bites of reduviid insects, also known as “kissing bugs” or “assassin bugs.”

Chagas disease in dogs: Transmission, diagnostic testing and clinical signs



Protecting Animal and Human Health through Diagnostics

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With increasing frequency, veterinarians in Texas and the Southwest are asking TVMDL to run diagnostic tests for Chagas disease in dogs.

Chagas disease (also known as American trypanosomiasis) is a parasitic, vector-borne disease found in the Americas from the southern United States through South America. It may cause heart disease in domesticated dogs and more than 100 other species of mammals. These include cats, pigs, goats, rodents, bats, marsupials, humans and other primates.

Transmission

The disease is caused by *Trypanosoma cruzi*, or *T. cruzi*, a flagellate protozoan. This parasite is considered endemic to the southern half of the United States as well as California.

T. cruzi is transmitted through the bites of reduviid insects, also known as “kissing bugs” or “assassin bugs.” More than 130 species of reduviidae are capable of transmitting *T. cruzi*.

Chagas disease is not transmissible through casual contact, but may be transmitted in blood or by contact with infected tissues.

The parasite is transmissible to humans.

Diagnostic testing

TVMDL offers a titer test (1:20 to 1:1280) for *T. cruzi* antibodies conducted in TVMDL’s College Station serology section.

Turnaround is a minimum of two business days if received before 10:30 a.m.

The test requires 1cc of serum.

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About TVMDL: The Texas A&M Veterinary Medical Diagnostic Laboratory protects animal and human health through diagnostics.

An agency of the Texas A&M University System, TVMDL comprises two full-service laboratories, in College Station and Amarillo, and two poultry laboratories, in Center and Gonzales.

TVMDL is among 12 core laboratories in the National Animal Health Laboratory Network, a group of state and regional laboratories designed to provide a nationwide surge testing, response, and recovery capacity in the event of an animal disease outbreak.

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Clinical signs

Incubation requires five to 42 days. Some dogs may not develop clinical signs until entering the chronic phase, which may occur several years after the initial infection.

The phases of the disease are identified as:

- Acute – This is the phase in which the parasite is most easily detected in the bloodstream. Primary signs include fever, anorexia, lethargy, swollen lymph nodes, an enlarged liver or an enlarged spleen.
- Latent – This phase is asymptomatic and may last for several years.
- Chronic – Congestive heart failure is the most common symptom, usually beginning with

right side heart failure. This may develop into chronic myocarditis with cardiac dilatation and arrhythmias. Sudden death is possible.

Reporting

Chagas disease is reportable to the Texas Department of State Health Services.

More information

To learn more about Chagas disease, consult these online resources:

- The Center for Food Security & Public Health: http://www.cfsph.iastate.edu/Factsheets/pdfs/trypanosomiasis_american.pdf
- The Centers for Disease and Prevention: <http://www.cdc.gov/parasites/chagas/>