

Chagas Disease – American Trypanosomiasis

Chagas disease (American Trypanosomiasis) is not reportable to the state of Louisiana.

Chagas disease or American Trypanosomiasis is an infectious disease caused by a protozoa, *Trypanosoma cruzi*, transmitted by reduviids or kissing bugs. Chagas disease is endemic in Latin America.

Most cases of Chagas disease in the United States are imported cases seen in Latin American immigrants. The protozoa is present in the blood, thus the risk of transmission through blood donations and organ transplantation.

Triatoma sanguisuga, *T.gerstaeckeri* and *T.lecticularia* (Family Reduviidae, subfamily Triatominae) are present in the U.S. Southern Gulf States. Reduviid bugs in Louisiana can transmit several strains of animal *T.cruzi* among armadillos, opossums, rodents, squirrels and raccoons. The *T.cruzi* infection rate for Triatominae in the Southern U.S. is twenty percent. In 1998, *T. cruzi* was isolated from the blood of twenty-nine percent of armadillos captured near New Orleans (Yaeger RG 1998. Am J Trop Med 35:323-326). Surveys in other southern states showed seroprevalences in the range of thirty percent to fifty percent among this animal species. Domestic animals, particularly dogs, are at risk of acquiring the infection. In 2005, *T.cruzi* infections were described in seven hunting dogs in Henderson, Louisiana (Malone J, 2005. Dept. of Pathobiological Sciences, LSU Veterinary School, Baton Rouge).

These same bugs can transmit the parasite to humans and other mammals. In July 2006, the first human case of insect-transmitted Chagas parasite in Louisiana and sixth ever in the United States was described. The discovery was made after a resident brought insects to the attention of a pest control operator who identified them as kissing bugs. After researching the bug on the Internet, the resident realized the potential for Chagas transmission. A local expert on Chagas disease was contacted to further investigate this situation. Of the two residents tested, one was positive for the exposure to the Chagas parasite. Studies carried out in Louisiana over the last several months on the many insects that were collected in the house and the nearby building, indicate that more than half of the insects tested carry the Chagas parasite. This was not a widespread public health concern since the person was living in a rural area in a very open house with numerous entry points for insects and no air conditioning. Most people in Louisiana reside in homes much less open to the outside, (<http://www.cdc.gov/eid/content/13/4/605.htm>).

A complete review of the threat posed by *T.cruzi* in Louisiana is available in the first issue of the Journal of the Louisiana Medical Society (Diaz, JH, 2007. Chagas disease in the United States: A cause for concern in Louisiana. J La State Med Soc 159:21-29).