Chagas' Disease (American Trypanosomiasis)

Traveler Summary

Introduction
American trypanosomiasis (known as Chagas' disease) is a parasitic disease caused by the protozoan *Trypanosoma cruzi*, which is transmitted by several species of triatomine Reduviid insects (kissing bugs).

In nature, the parasite lives in close contact with their non-human mammal hosts in burrows, hollow trees, palm trees, and other animal shelters. They can also live in certain types of human dwellings, particularly thatch, mud, and adobe huts—the kind of dwelling where human cases of Chagas' disease most characteristically occur.

Transmission
Chagas' disease is transmitted when an infected Reduviid bug bites and takes a "blood meal" from a human, depositing feces in a bite wound or through the surface of the eye or lining of the eyelid. Typically, these insects feed at night. Transmission can also occur through blood transfusion, and through certain food (primarily contaminated sugar cane or acai juice).

Risk Areas
Chagas' disease is endemic in Mexico, and Central and South America. Rare cases have been reported in the U.S. Local transmission of Chagas' disease has been reported from Texas and California to Southern Argentina, but the highest concentration of cases occurs in the area between the southernmost states of Mexico to northern Argentina. Exceptions within this area include the Caribbean, Uruguay, and Brazil.

Risk Factors
The risk to travelers is extremely low. Travelers staying in conventional, urban-type hotels and resorts are at little, if any, risk for Chagas' disease.

- Highest risk is for persons sleeping in poorly constructed houses in endemic areas, especially huts made of mud, palm thatch, or adobe brick.
- In endemic areas where unsanitary food sources exist, freshly prepared sugar cane or acai juice can pose a risk.
- The risk of transmission via transfused blood may be more relevant to travelers who require urgent medical care while in rural areas of South America, where blood quality may be suboptimal.

Symptoms
Acute Chagas' disease usually has no symptoms, or very mild ones; however, children tend to have symptoms more often than do adults.

- In some individuals, a raised reddened area can be seen where the bite occurred.
- Persons who have acquired the infection through the conjunctiva can develop painless swelling around the eye.

Following these initial local symptoms, fever, swelling of lymph glands, and generalized edema can occur.

A small number of patients will develop central nervous system symptoms and/or cardiac involvement, both of which can be serious.

Most persons with acute Chagas' disease will experience spontaneous resolution of the symptoms within 8-10 weeks.

Chronic infection can develop years or decades after the initial infection. Heart problems can develop, as well as progressive heart failure. Other organs (colon, esophagus) can also be damaged.

Prevention
There are no vaccines or chemoprophylactic agents available for prevention of Chagas' disease.
Travelers should:
- Avoid staying overnight in houses constructed of mud, adobe brick, or palm thatch, particularly those with cracks or crevices in the walls and roof
  - If it is not possible to avoid these dwellings, travelers should search the sleeping area thoroughly for bugs. Use bed nets when camping or sleeping outdoors in endemic regions.
- Avoid freshly prepared fresh fruit and cane juices from unsanitary sources in areas endemic for oral transmission
- Avoid blood transfusions (unless a life-threatening emergency exists) if it is not known for certain that the blood has been screened for Chagas’ disease

Need for Medical Assistance
Any traveler who thinks he or she may be experiencing symptoms of Chagas’ disease should seek attention from a knowledgeable health professional.
This is particularly important if the affected person is a child, since Chagas’ disease can be serious, even fatal, in children.