

# African Trypanosomiasis

## Traveler Summary

### Key Points

- African trypanosomiasis (sleeping sickness) is caused by bloodstream parasites transmitted through the bite of infected tsetse flies, typically found in game parks and near forested rivers in certain regions of Africa.
- Risk for short-term travelers is low.
- Acute severe and chronic infections present with fever and a red nodule (chancre) at the bite site. Chronic infection (most common) also causes swelling in the lymph nodes and increased sleepiness.
- Coma and death may occur if left untreated.
- Preventive measures include avoiding areas that are known to be heavily infested with tsetse flies, relocating when tsetse flies are encountered, wearing light-colored clothes (but not blue) made from thick material, and observing insect precautions (which are only marginally effective against tsetse flies but significantly effective against disease-carrying mosquitoes).
- No vaccine or safe preventive drugs are available.

### Introduction

African trypanosomiasis is caused by blood-borne parasites transmitted through the bite of infected tsetse flies, typically found in game parks and near forested rivers in certain regions of Africa. Two presentations of the disease occur, depending on the type of infecting parasite: acute severe (short-term, lasting from several weeks to months) and chronic (long-term, lasting for years). Most infections in travelers are of the acute severe type.

### Risk Areas

African trypanosomiasis occurs in African countries that lie south of the Sahara Desert. The acute severe presentation of the disease occurs with infection acquired in game parks in savannah grasslands and open woodlands in eastern and southeastern Africa where travelers go on safari. The chronic presentation of the disease (more than 95% of all cases) occurs with infection acquired around rivers in tropical and mangrove forests and along forested rivers stretching into the savannah in central Africa and limited areas of West Africa; since 2017, more than 70% of cases have occurred in the Democratic Republic of the Congo. Transmission appears to have stopped in some countries, but unstable circumstances in the country hinder an accurate assessment of the situation. The chronic presentation occurs mainly in local populations in rural areas. Cases among short-term travelers are rare, but expatriates living or working in these areas may be at risk.

### Risk Factors

Risk for short-term travelers is low.

The acute severe form: Travelers on safari in game parks (whether on foot or in vehicles) or visiting farms with livestock are at risk for infection in the African regions noted above. Risk generally increases with the amount of time spent in the infected area, but some cases have occurred in individuals who have been in an infected area for only a few days. Walking safaris may be riskier than mini-bus safaris.

The chronic form: Cases in short-term travelers are rare, but expatriates living or working in the African regions noted above can be at risk. Outdoor activities in rural areas increase the chances of coming in contact with disease-carrying flies, but some urban areas also have reported transmission.

### Symptoms

Fever is the first symptom of infection with either type of African trypanosomiasis. In some cases, a chancre appears at the site of the fly bite (surrounded by inflamed tissue and swelling) and is accompanied by enlarged lymph nodes and, often, a widespread rash.

- The acute form is a severe illness that progresses rapidly, with symptoms beginning within days to weeks after infection. A chancre appears at the bite site in about half of the cases. Most short-term travelers who acquire the acute severe form have

fever and systemic symptoms by the end of their trip or shortly after returning home. The early stage of infection is in the bloodstream; the later stage involves the brain and spinal cord.

- The chronic form progresses more slowly. A chancre appears at the bite site. Early symptoms include intermittent fever, swelling in the lymph nodes, and an itchy rash. Months to years later, slowly progressive symptoms indicating brain and spinal cord involvement occur causing increasing sleepiness, coma, and death.

## Consequences of Infection

Coma and death may occur if left untreated.

## Prevention

The best way to prevent infection is by avoiding areas that are known to be heavily infested with tsetse flies and relocating when tsetse flies are encountered. Tsetse flies are attracted to bright clothing (especially blue) and can bite through thin clothing. Travelers should wear light-colored clothes (but not blue) made from thick material. Insect precautions are only marginally effective against tsetse flies but significantly effective against disease-carrying mosquitoes, such as those that carry malaria. Avoid proximity to animals, including those in game parks or on farms. No vaccine is available, and no safe preventive drugs exist. See *Insect Precautions*.

## Need for Medical Assistance

Travelers, expatriates, and immigrants coming from endemic countries who suspect that they may have been infected should seek immediate medical assistance; untreated infection is fatal. Report any intermittent fever, especially if accompanied or preceded by an ulcerative skin lesion, swollen glands, or rash. Inform health care providers of the travel itinerary so they can determine whether any risk areas were transited. Early diagnosis is vital. Treatment during the early stages is effective and reasonably well tolerated. Treatment in the later stages, however, requires the use of very powerful drugs that may cause harmful side effects.