

Helminths

Traveler Summary

Key Points

- Helminths (parasitic worms) are transmitted worldwide through ingestion of their eggs (usually in contaminated water) or by consumption of immature worms in poorly processed pork or beef. Immature worms may also penetrate intact skin.
- Risk is low for short-term travelers but increases for expatriates and long-term travelers going to affected countries with poor general sanitation.
- Symptoms are generally mild and may include abdominal pain and bloating and diarrhea.
- Consequences of infection include intestinal bleeding, anemia, and in children, intestinal obstruction.
- Prevention includes observing standard food and beverage precautions, frequent, thorough handwashing, wearing appropriate footwear, and sitting on a towel, blanket, or piece of clothing (if a chair or hammock is not available) to avoid direct contact with sand and soil, especially where fecal contamination is likely.
- No vaccine or preventive drugs are available.
- Self-treatment includes periodic treatment with anthelmintic agents such as albendazole or mebendazole.

Introduction

Helminths (parasitic worms, including roundworms, flukes, tapeworms, and hookworms) are transmitted worldwide through ingestion of their eggs (usually in contaminated water) or by consumption of immature worms in poorly processed pork or beef. Immature worms may also penetrate intact skin. The risk of helminth infestations is low for most short-term travelers and even when infected, travelers have a small number of parasites and few (if any) symptoms.

Risk Areas

Parasitic worms can be found almost anywhere in the world, and infections are widely distributed in temperate, tropical and subtropical regions, with the greatest numbers occurring in sub-Saharan Africa, the Americas, China, and East Asia. Most infected individuals have low parasite burdens.

Transmission

Helminths are transmitted worldwide through ingestion of their eggs (usually in contaminated water) or by consumption of immature worms in poorly processed pork or beef. Immature worms (mainly hookworms) may also penetrate intact skin.

Risk Factors

Risk of acquiring intestinal helminthic infections is low for short-term travelers but increases for persons who are exposed to unsanitary conditions, particularly water or food contaminated with human or animal waste. Some helminths are more common in moist jungle areas, thus increasing the risk for missionaries, bird watchers, and eco-tourists.

Risk also increases for persons walking barefoot or lying on moist sand or soil in affected areas or along the tide line of tropical and subtropical beaches where dogs run free and defecate on the sand.

Expatriates and long-term travelers going to endemic areas are more likely than short-term travelers to develop clinically significant parasitic infections as a consequence of relaxation of precautionary measures and repeated exposures over time.

Symptoms

Symptoms are varied depending on the type and burden of parasites present. In most cases, the time between exposure and the appearance of eggs or larvae in a person's stools is a minimum of 6 weeks. Most intestinal cases of helminth infestation in travelers are asymptomatic, but some infections may cause nonspecific digestive symptoms, including mild to moderate abdominal pain, diarrhea of varying intensities, and abdominal distention. Passage of large worms (20-51 cm [3-20 in]) is indicative of helminth infection, although some helminths are not commonly passed and are often too small to be visible.

Consequences of Infection

Helminthic infections can result in chronic intestinal blood loss and anemia, extreme tiredness, impaired growth and physical development, and in children, severe intestinal obstruction.

Need for Medical Assistance

Travelers who develop symptoms of helminthic infections should seek medical attention for evaluation of the need for treatment. Anthelmintic agents such as albendazole, mebendazole, or ivermectin are generally effective against a variety of parasitic worms. Long-stay expatriates without access to diagnostic facilities may routinely self-treat every 6 months with albendazole or mebendazole.

Prevention

Nonvaccine

Observe strict food and beverage precautions and avoid direct contact with sand and soil (e.g., by wearing appropriate footwear and lying on a chair or blanket), particularly in areas where fecal contamination of the soil is likely.

Avoid consumption of unprocessed water, ice, raw vegetables, fruits with skin that have not been thoroughly washed with clean water, undercooked beef or pork, salted, dried, or pickled meat-derived products, and other food items processed in unsanitary conditions.

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