QUICK LINKS

Leishmaniasis—TRAVELER INFORMATION
• General Information • Preventive Measures • When to Seek Medical Attention

Traveler Information

LEISHMANIASIS

GENERAL INFORMATION

Leishmaniasis is a disease caused by the bite of an infected sandfly. The infection most often involves the skin (cutaneous leishmaniasis) but can affect mucous membranes (mucosal leishmaniasis) and—rarely—internal organs (visceral leishmaniasis). The disease occurs in tropical and subtropical areas of the world.

Transmission

Leishmaniasis is acquired by the bite of an infected sandfly. Sandflies are noiseless fliers about one-third the size of mosquitoes. In the "Old World" (Europe, Asia, Africa) they may rest in cracks in walls of human habitation, rodent burrows, holes in trees, or cattle sheds (in India); these sandflies tend to be more active in the evening and night-time hours. In the "New World" (the Americas and Australasia) they rest in leaf litter and between tree buttresses in forests; in these areas they may be active day and night.

The reservoir for the disease can be domestic dogs (in the Mediterranean basin, Middle East, Central Asia, and South America), desert rodents (in the Old World), or man (in Africa, India, and urban areas of the Old World). In temperate countries, transmission is restricted to summer months, while in the tropics and subtropics, transmission can occur throughout the year.

Epidemiology

Leishmaniasis is currently endemic in 88 countries on 4 continents. In the Americas, leishmaniasis is present from southern Texas to northern Argentina, excluding Chile and Uruguay. In Africa, it occurs predominantly in North and East Africa, with sporadic cases elsewhere. In Europe and Asia, it occurs in the Mediterranean coastal area, the Middle East, the Indian subcontinent, northeastern China, and many central Asiatic countries, excluding Southeast Asia and Australasia. Areas of the world where leishmaniasis activity has recently increased or reached epidemic proportions include the state of Bihar in northeast India, South Sudan, and the borders of Ethiopia, Afghanistan (in particular the city of Kabul), and Brazil.

Risk Factors

Risk depends on the likelihood of contact with an infected sandfly and length of stay in the endemic area, although cases have been reported in travelers who were exposed for as short as a single day. Risk also increases according to time of day, as noted above (*see "Transmission"*). The activities of travelers can also create risk factors.

Among travelers, the risk of acquiring American cutaneous leishmaniasis seems to be highest in Suriname, Peru, Costa Rica, and Guatemala—most likely due to the fact that travelers to those countries frequently engage in forms of research, exploration, or eco-tourism that involve intense exposure in forested areas.

People who camp out on a warm still night near rodent burrows in the desert or semi-desert of North Africa, the Near or Middle East, or Central Asia are also at high risk for cutaneous leishmaniasis. In the forests of South and Central America, risk is widespread and unpredictable; people who camp out at night or live in unscreened shelters in the forest are at high risk. Walking in leaf litter by day may stimulate resting sandflies to bite. However, increased urbanization and destruction of forests have led to changes in the sandfly behavior, and the risk of getting leishmaniasis in towns and villages is increasing.

Most cases of visceral leishmaniasis are acquired in Bangladesh, Nepal, Sudan, northeastern Brazil, and Bihar state in India. However, epidemics in India and Sudan pose little threat to travelers, who are unlikely to sleep out in villages (India) or semi-desert areas (Sudan). The greatest risk comes from summer holidays in the Mediterranean basis, where a high percentage of dogs are

infects and sandflies may be common locally.

Bolivia poses the greatest risk of mucosal leishmaniasis to travelers.

Symptoms

The incubation period is extremely variable. For cutaneous leishmaniasis, the incubation period averages several weeks. For visceral leishmaniasis, it is 3 to 9 months on average. Mucosal leishmaniasis usually develops a few years after cutaneous lesions have healed.

Cutaneous leishmaniasis (also referred to as Aleppo boil, Aleppo evil, Bagdad boil, Delhi boil, oriental sore, tropical sore, chiclero's ulcer, uta, pian bois) is the most common form of leishmaniasis in travelers. It begins with one or multiple lesions that evolve slowly from papules to nodules to ulcers with a central depression and hardened, raised borders. (Less typically, crusted, nodular, non-ulcerated lesions may also occur.) Ulcers usually occur on hands, arms, legs, and facial areas exposed to sandflies. Left untreated, cutaneous leishmaniasis lesions resolve over a period of up to 2 years, leaving behind an atrophic scar.

Mucosal leishmaniasis (espundia) is a late complication of the American form of cutaneous leishmaniasis and usually develops a few years after the original skin lesions have healed. In some cases, however, it can appear while skin lesions are still present or decades after they have healed. It is characterized by initial symptoms of nasal obstruction, discharge, or nosebleed and later symptoms including inflammation and perforation of the nasal septum, with or without involvement of the soft palate, the skin of the nose, the pharynx, the larynx, or the mucous membrane lining the cheek. Mucosal leishmaniasis is uncommon in travelers but may occur even if the original cutaneous lesion has been effectively treated.

Visceral leishmaniasis, where the parasite spreads to internal organs, is rare in travelers.

PREVENTIVE MEASURES

There are no clinically proven vaccines against leishmaniasis, and no preventive drugs are recommended. Travelers to risk areas should observe standard insect protective measures (see *Insect Precautions*), especially during times when the sandflies are most active. Because sandflies are so tiny—approximately one-third the size of most mosquitoes—regular screens and bed nets might not be protective against them. Thus screens and bed nets should be of sufficiently fine mesh to keep the sandflies out; repellents and permethrin should be used and long sleeves and trousers worn.

WHEN TO SEEK MEDICAL ATTENTION

Individuals who develop a small (up to a 2-inch) skin ulcer within 2 months of travel that does not heal within 2 weeks or so should seek medical attention and inform their health care providers that they may have been exposed.