



What

Leptospirosis is caused by *Leptospira* bacteria, which can infect various mammals, with rodents and anteaters being the primary reservoirs. These animals may shed the bacteria in their urine, allowing it to survive in the environment for extended periods. Transmission to humans occurs when contaminated surfaces (such as water, mud, or rodent urine) come into contact with mucous membranes. Infection can also occur through inhalation of aerosols or consumption of contaminated substances, though human-to-human transmission is rare. Leptospirosis is also known by other names, including Weil's disease, swamp fever, and mud fever.

Prevention

The primary ways to prevent leptospirosis include avoiding potential sources of infection, such as stagnant water and runoff from animal farms, controlling rodent populations, and protecting food from animal contamination. Post-exposure antibiotics may be recommended for those at higher risk of developing the disease, including pregnant women or individuals with weakened immune systems. Vaccination of domestic and farm animals can be applied, though the level of protection is moderate. Since 2022, a human vaccine for leptospirosis has been available in the Netherlands for adults with an increased risk of exposure.



Symptoms

The incubation period for leptospirosis is 2-30 days (usually 7-12 days). Symptoms of leptospirosis vary. In most infected individuals, the disease is mild and resolves on its own; however, in some cases, it can be severe and potentially fatal. Most people who develop symptoms experience fever, headache, muscle aches, and chills. Among those with symptoms, 5-10% develop jaundice, a serious condition with a mortality rate of 5-15%. Fewer than 1% of infected individuals require hospital admission.



Who

Leptospirosis occurs worldwide, but humid subtropical and tropical areas often see higher rates, especially during rainy seasons. Key risk factors include direct exposure to animals, particularly rodents, and activities that may lead to skin abrasions combined with water or soil exposure, such as freshwater swimming or kayaking. Poor sanitation and living conditions also increase the risk of infection.

Where and when

Leptospirosis is considered the most widespread zoonosis (animal-to-human infection) globally, with the highest prevalence in tropical regions. Areas with the highest incidence include South and Southeast Asia, Oceania, the Caribbean, parts of sub-Saharan Africa, and parts of Latin America. In humans, cases are usually sporadic, although outbreaks can occur due to common source exposures.

Treatment

Many patients recover spontaneously and may not even realize they have been infected. For those whose illness is severe enough to seek medical care, starting antibiotic treatment can help shorten the duration of the illness and reduce the risk of complications. Several antibiotics are available for treatment, with the choice of drug depending on the patient's specific symptoms and overall health.

In case of infection

In the minority of people Leptospirosis may be complicated by jaundice and renal failure, pulmonary hemorrhage, inflammation of the heart and muscle breakdown. Multiorgan failure and even death may occur. Making a correct diagnosis is important to enable timely administration of antibiotic therapy.