A MONTHLY BULLETIN

epiTRENDS

Epidemiology and Public Health Practice in WA

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Legionellosis in Washington State

Legionnaires' disease is a serious but preventable pneumonia caused by bacteria found in water. As Seattle prepares to host thousands of summer tourists including visitors for the FIFA World Cup starting June 1, 2026, understanding how *Legionella* spread, and how to prevent exposures, is especially important.

Essential Points

1. Nearly 1 in 7 patients with *Legionella* infection reported staying overnight at hotels, private homes, or vacation rental properties.
2. Facility operators should maintain and monitor water systems and follow water management guidance (see Resources).
3. Guests and travelers can reduce risks by flushing out taps and avoiding poorly maintained water features (e.g., hot tub).
4. Early diagnosis and reporting are critical for public health response and preventing additional cases.

The Disease

Legionellosis refers to two illnesses mainly caused by inhaling small water droplets (mist) containing *Legionella* bacteria. Legionnaires' disease is a severe pneumonia while Pontiac fever is a milder illness. Rare exposures are person-to-person or from potting soil. The incubation period is 2–14 days. Most exposure to *Legionella* do not cause illness; risk is increased for adults aged 50 and older, current or former smokers, and people with weakened immune systems or chronic disease. There is no vaccine for Legionnaires' disease, but early diagnosis and antibiotic treatment significantly improve outcomes.

Cases usually occur singly, though outbreaks have been linked to complex water systems in settings such as hotels, healthcare facilities, and cruise ships. The disease was first recognized due to an outbreak among a Legionnaires' conference in a hotel. Legionnaires' disease should be considered in patients with pneumonia who have recent travel or large gathering exposures.

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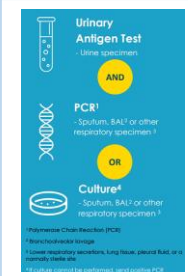
Diagnosis and Reporting



Clinicians should order both a urinary antigen test and a respiratory specimen for PCR or culture. Urine antigen testing detects only *L. pneumophila* serogroup 1 and may miss other strains found with culturing. Culture also supports comparison with environmental samples during investigations. More information can be found at: https://doh.wa.gov/sites/default/files/2024-06/420590-LegionellaHealthcareEducation.pdf.

Legionellosis is notifiable to the local health jurisdiction in Washington within 24 hours of diagnosis. Washington Department of Health can assist local health jurisdictions with investigation when an outbreak is suspected. Public health investigations aim to identify sources, detect outbreaks early, and prevent additional cases.

Reported legionellosis cases have increased nationally since 2000. Washington reports 60–130 cases annually. In recent years. In 2023, 131 legionellosis cases were reported in Washington, which is a 54% increase from the previous high of 85 cases reported in 2021. The number of cases has remained elevated with a case fatality of approximately 7–10%. Travel-associated cases, including those linked to hotel stays, are reported regularly. Recent investigations in Washington have identified exposures to hot tubs, pools, showers, water fountains, use of non-sterile water in humidifier and respiratory therapy devices, etc. as possible sources of exposure.

Prevention: Water Management Plans

Legionella bacteria occur naturally in freshwater but become a risk in water systems with stagnation, temperatures reaching 77°F–113°F, and low disinfectant levels. Infected can result from breathing in contaminated water droplets from poorly maintained sources such as:

- Showerheads and faucets
- Hot tubs and pools
- Cooling towers
- Outdoor cooling misters
- Decorative fountains and water features
- Plumbing systems in large buildings

For facility operators and property managers: Hotels, short-term rentals, and other hospitality venues should confirm that their water management plans are current and follow CDC guidance: https://www.cdc.gov/control-legionella/media/pdfs/toolkit.pdf. This includes regular monitoring of water temperature, disinfectant levels, and flushing protocols. Key prevention actions include:

- Flushing water systems weekly in guest rooms or vacation rental units if they have been vacant for more than one week
- Maintaining and disinfecting hot tubs, pools, and fountains according to manufacturer and public health guidance.
- Checking cooling towers and large plumbing systems for proper maintenance and disinfection
- Provide training for maintenance staff on *Legionella* prevention.

https://www.cdc.gov/control-legionella/php/data-research/outbreaks-water-management-gaps/index.html

For the public: Individuals can take simple steps to reduce their risk while staying in hotels, vacation rentals, or attending events, particularly if at increased risk for infection:

- Run hot water in showers and faucets for at least three minutes before use, particularly in short-term rentals or hotels that may have low occupancy prior to your stay
- Avoid using hot tubs, pools, or water features that appear poorly maintained. Avoid use of hot tub jets to minimize water aerosolization
- Clean and maintain personal devices that use water (humidifiers, CPAP machines) with water that is distilled or previously boiled and cooled
- Be alert for symptoms (fever, cough, muscle aches, or shortness of breath) within two weeks of travel or attending large events, and tell your healthcare provider of the exposures

The World Cup Context

Lumen Field in Seattle is scheduled to host six matches between June 15 and July 6, 2026, and draw visitors from across the United States and from dozens of countries abroad. Maximum stadium capacity of approximately 68,740 will be reached or approached for each match. Visitors will stay in hotels or short-term rentals and attend fan events across Washington.

Large international events increase exposure to unfamiliar water systems, particularly in hotels and rental housing. Travelers may also use hot tubs, pools, and other mist-generating devices more frequently. Previous major international sporting events, including FIFA World Cups and Olympic Games, have linked *Legionella* clusters to hotels and temporary accommodations. An outbreak associated with such an event can cause cases across multiple states and countries, complicating an investigation and requiring rapid coordination. Office of Communicable Disease Epidemiology is available for case reports or consultations: 206-418-5500 or legionella@doh.wa.gov.

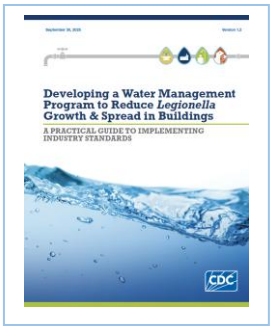
Resources

Washington State Department of Health

Guidance for reporting, investigating, and monitoring legionellosis cases in Washington: https://doh.wa.gov/sites/default/files/2025-08/420-058-Guideline-Legionellosis.pdf

Guidance for prevention, diagnosis, and treatment: https://doh.wa.gov/you-and-your-family/illness-and-disease-z/legionnaires-disease

Centers for Disease Control and Prevention



Overview of *Legionella*: https://www.cdc.gov/legionella/hcp/clinical-overview/index.html

Water management programs for building operators: https://www.cdc.gov/control-legionella/php/wmp/index.html

Training on *Legionella* water management programs: https://www.cdc.gov/control-legionella/php/training/index.html

Identifying buildings at increased *Legionella* risk: https://www.cdc.gov/control-legionella/php/toolkit/wmp-worksheet.html

Guidance for hotel owners and managers: https://www.cdc.gov/control-legionella/php/hospitality/considerations-for-hotel-owners-and-managers.html

Guidance for vacation rental owners and managers: https://www.cdc.gov/control-legionella/php/hospitality/considerations-for-vacation-rental-owners-and-managers.html