

History

Legionella is a bacterium that can cause pneumonia (Legionnaires' Disease) or a flu-like illness (Pontiac Fever). The name *Legionella* was derived from the original outbreak at the 1976 American Legion Convention that caused 34 deaths and illnesses of 200 more people. The Centers for Disease Control and Prevention reports that the cases of Legionnaires' Disease are rising. In 2013, 4,954 individual confirmed cases were reported in hospitals, hotels, office buildings, schools, industrial buildings, etc.

There are 58 known species of *Legionella* and more than 70 serogroups, half of which have been associated with human disease. *Legionella pneumophila* has caused the majority of cases.



Legionella gram-negative bacterium

Ecology and Sources in Buildings

Legionella bacteria are often present at low levels in rivers and lakes. Low numbers of *Legionella* can enter buildings and mechanical equipment through the municipal water supply where they can multiply under suitable conditions for growth. These growth conditions include water temperature (80°-120°F); stagnant water or low-flow conditions such as pipe dead-legs; and accumulated debris, scale, and biofilm in water distribution systems. Potential *Legionella* amplification sites are in building cooling towers, evaporative condensers, humidifiers, hot and cold domestic water (faucets and showers), and open water systems (e.g., decorative fountains).

Legionella Mode of Transmission

Legionellosis is not contagious. It is transmitted via aerosols inhaled from a contaminated water source or through aspiration. Legionellosis cases or suspect cases must be reported to the local public health jurisdiction within 7 days.

Proactive monitoring and a water management plan can greatly reduce the liability and risk associated with *Legionella* contamination.

EQM Services

EQM can assist with the assessment and control of *Legionella*. Our key service areas include:

- Investigation of suspected or confirmed cases of Legionellosis.
- *Legionella* hazard assessment to identify risks presented by water systems and develop control measures to reduce risk of *Legionella* exposure.
- Routine and post-disinfection monitoring of water systems.
- Development of a *Legionella* Bacteria Control Management Plan consistent with ASHRAE Guidelines 12-2000, ASHRAE Standard 188P, and/or other *Legionella* guidelines.

About EQM

Environmental Quality Management, Inc. (EQM) is a full-service environmental consulting, engineering, and remediation firm. In addition to our corporate headquarters in Cincinnati, EQM has eight offices located throughout the United States.

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