PLUMBING MANUFACTURERS INTERNATIONAL ®

Just the Facts – Legionella and Water Supply Systems

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According to the Centers for Disease Control and Prevention, opportunistic premise plumbing pathogens such as Legionella are the primary cause of waterborne disease in the U.S. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

About 5,000 cases of Legionnaires' disease are reported each year in the U.S., according to the Centers for Disease Control and Prevention. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

This Plumbing Manufacturers International (Safe Plumbing) "Just the Facts" content provides answers to several key questions about Legionella and its potential effects on water supply systems. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Legionella are naturally occurring bacteria found in freshwater sources, where the bacteria generally are present in low amounts and do not lead to disease. However, Legionella can multiply to dangerous levels under certain conditions and potentially cause Legionnaires' disease. People contract this disease by inhaling small droplets of the contaminated water through mist or vapor. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Legionella was discovered in 1976 in the building water supply system at a hotel in Philadelphia during an American Legion convention. More than 200 people contracted the bacteria, which resulted in what would be called Legionnaires' disease. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Legionnaires' disease is caused by Legionella bacteria infection. Individuals with underlying illnesses or weakened immune systems are most susceptible to infection. But relatively healthy individuals can be at risk of contracting the disease as well. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Legionella contamination can occur when water supply systems are improperly maintained, leading to an environment that feeds Legionella growth. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Research by Virginia Tech professor Marc Edwards shows that opportunistic premise plumbing pathogens like Legionella are more likely to grow when water aging problems occur in water pipes leading to the tap. This finding provides an alert at a time when lower flow rates and alternative kinds of water supply systems that keep water in pipes longer are being considered as solutions to water shortages. Edwards, a nationally prominent voice in leading the response to the water crisis in Flint, Mich., continues conducting research on water quality in water supply systems with water age issues. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Legionella needs to grow to cause a health risk. Parts of a water system with insufficient circulation or lukewarm temperature can provide the ideal environment for Legionella growth. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Any source that generates aerosol or a fine mist of water has the potential to transmit Legionella. Large complex plumbing systems are most often associated with Legionnaires' disease outbreaks. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

One of the best ways to reduce the risk of Legionella growth and spread is to design, implement and regularly update an overall water safety plan for an entire water supply system, taking into account any potential hazardous conditions for a particular system and including industry best practices for prevention. The foundation of this plan is an engineering audit of the water system. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is responsible for creating key Legionella standards seeking to control the bacteria's spread in water supply systems. ASHRAE Standard 188 is endorsed by the Centers for Disease Control and Prevention (CDC) and is a Centers for Medicare and Medicaid Services (CMS) requirement for all CMS healthcare facilities. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 188 is the American National Standards Institute (ANSI) approved standard relating to Legionella control. ASHRAE 188 establishes minimum risk management requirements to control the transmission of Legionella in water supply systems. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems

Older water infrastructure can be vulnerable to contamination through leaks and breaks, which increase the possibility of Legionella entering the infrastructure, forming in biofilms, and then being released into the water supply. Read the Plumbing Manufacturers International (Safe Plumbing) Legionella content: https://www.safeplumbing.org/health-safety/legionella-and-water-supply-systems