

# When Water Use Slows, Legionella Grows

## Legionella Risk During Prolonged Building Closures and Abrupt Re-entry

In response to the COVID-19 pandemic, many industries are ceasing operations, closing buildings to occupants, or experiencing an overall reduction in business. Others are increasing production and utilizing resources, rooms, and building systems that were once unused in order to provide essential services. As a result, building water systems may be left stagnant until business resumes or will be started abruptly, without consideration of prior stagnation. Warm, stagnant water presents the ideal conditions for the growth of opportunistic bacteria such as *Legionella*.

*Legionella* is a bacterium found naturally in freshwater environments. When ideal conditions for proliferation such as warm, stagnant water are found within a building water system which includes showerheads and sink faucets, cooling towers, hot tubs, decorative fountains, hot water tanks/heaters, and pipes, it can multiply. After *Legionella* multiplies, is aerosolized, and is inhaled or aspirated via water droplets, it can cause Legionnaires' disease or, the milder infection, Pontiac Fever.



Most healthy people exposed to *Legionella* do not get sick. However, individuals with an increased risk of getting sick include those who are 50 years or older, current or former smokers, are experiencing a chronic lung disease, a weak immune system, cancer, or an underlying illness such as diabetes, kidney failure or liver failure.

The key to preventing Legionnaires' disease or Pontiac fever is properly maintaining building water systems. Properly maintaining a building water system to reduce the risk of *Legionella* growth includes:

- monitoring disinfectant levels throughout the building;
- maintaining water temperatures outside of 77-108° F which is the ideal temperature range for *Legionella* growth;
- preventing stagnation by assessing the building water system for dead legs and routine maintenance (e.g., flushing);
- operating and maintaining equipment; and
- monitoring external factors such as building construction

(Resources: [CDC. Legionella: https://www.cdc.gov/legionella/index.html](https://www.cdc.gov/legionella/index.html))

Notable guidance in developing a water management program (WMP) to reduce *Legionella* growth and spread in buildings was published by ASHRAE® and approved by ANSI in 2015 and updated in 2018 ([Standard 188](#)), "[Legionellosis: Risk Management for Building Water Systems](#)." In June 2017, the CDC published an [online WMP toolkit](#), which provides a simplified process based on key elements of the ASHRAE Standard 188.

As we navigate through the business fluctuations caused by the COVID-19 pandemic, it is important to review your WMP or building maintenance procedures to confirm all control measures are being addressed and reduce any stagnation within your building water systems. Stagnation can be reduced by carefully flushing particular locations (while avoiding splashing and aerosolization) where water may be stagnant, warm, and/or aerosolized to reduce or eliminate the growth and spread of *Legionella*.

At RHP Risk Management, we help our clients navigate the uncertainties associated with environmental and occupational hazards and risks. Our staff of public health professionals are experienced and trained in recognizing, anticipating and controlling hazards and are experts in the development of water management programs and water testing to reduce the risks of building-related Legionellosis.

*For more information on RHP's Legionella services and contact information, please visit <https://rhprisk.com/legionella/>.*

*For more resources concerning COVID-19, visit [www.rhprisk.com/coronavirus/](http://www.rhprisk.com/coronavirus/)*

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