



Due to the current COVID-19 situation many places of work have had to temporarily close. In many cases, the closure may have occurred overnight or at very short notice. As organisations are starting to consider how to return safely to using their premises Public Health England and the Health and Safety Executive have warned of the risk of Legionella growth in stagnant unused water systems in buildings which have been left unoccupied for weeks or months. This guide flags up some of the key considerations.

What is Legionnaires' disease?

Legionnaires' disease is a potentially fatal form of pneumonia. People may become infected when they breathe in tiny water droplets (aerosols) or droplet nuclei (particles left after the water has evaporated) contaminated with elevated concentrations of Legionella bacteria. Legionella bacteria grow best between temperatures of 20°C–45°C with optimum growth temperature being 35°C–40°C. High temperatures (minimum 60°C) kill the bacteria. Legionnaires' disease can affect anyone. People with immunosuppressed systems, older people or those suffering from respiratory problems may be particularly vulnerable. This potentially includes individuals who are recovering from COVID-19.

Legionella bacteria are found in low numbers in natural aquatic environments, for instance, lakes, rivers and ground water. As a result, it is virtually impossible to prevent Legionella bacteria entering man-made water systems. In low numbers, the bacteria are generally considered harmless. With the correct conditions, for example, warm water, the presence of microorganisms and nutrients in the water or materials such as rust, the bacteria can grow and multiply to high levels, which increases the risk of exposure. The bacteria tend to grow in biofilms (slime).

Biofilms are likely to form on surfaces where there is low water flow or water is allowed to stagnate. Low or no water flow and stagnation can occur during temporary water system closures.



What are the implications for my organisation?

Under health and safety law, people and organisations in control of premises, have a duty to protect people by identifying and controlling risks associated with legionella. If your building was closed or has reduced occupancy during the coronavirus (COVID-19) outbreak, water system stagnation can occur due to lack of use, increasing the risks of Legionnaires' disease.

As part of your risk assessment or process for re-opening, your water hygiene risk assessment should be reviewed or a new one carried out. Your buildings should not be re-occupied until you have taken all reasonably practicable precautions to control any water hygiene-related risks that may have arisen during the lockdown including taking appropriate control measures which might include water testing and/or treatments.

Depending on the nature of your building these measures can vary in extensiveness. A minimum expectation for small, simple hot and cold water systems would be to flush through with fresh mains water. Larger buildings with storage tanks, showers, calorifiers and more complex pipework will potentially need more extensive flushing followed by cleaning and disinfection.

Where to find out more information / support

- Health and Safety Executive Legionella risks during the coronavirus outbreak
- The Legionella Control Association (LCA) Safe Management of Water Systems in Buildings during the COVID-19 Outbreak
- It may also be an idea to contact your insurer as they may have issued guidelines and expectations on the issue.



