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Guidance for businesses on re-opening buildings post COVID-19 lockdown and associated Legionnaires' disease risk

What is Legionnaires' disease?

Legionnaires' disease is a lung infection you can catch by inhaling tiny droplets of water containing the bacteria that cause the infection. It's usually caught in places like hotels, hospitals or offices where the bacteria have got into the water supply. It's very rare to catch it at home.

Symptoms of Legionnaires' disease can be very similar to COVID-19 and include high temperature, feverishness and chills; cough; muscle pains; headache; and pneumonia.

The individuals who are most at risk of contracting the disease are:

- People over 45 years of age
- Smokers and heavy drinkers
- People with underlaying respiratory illnesses, diabetes, lung, heart or kidney diseases
- Anyone with an impaired immune system

Who is this guidance aimed at?

This guidance is aimed at hairdressers, beauty salons, offices, hotels, gyms, sports clubs, golf clubs, pub, clubs, restaurants and shops but it is also relevant to all public, residential or office buildings and anywhere that has a water supply.

If your business or place of work has **been closed for more than seven days** following the Coronavirus outbreak, you will need to consider the risks of Legionella and take steps to protect you, your staff and your customers or anyone else who may be exposed when the water supplies are started again.

Why is Legionella bacteria a potential risk in your business and why do you need to consider it?

Legionella bacteria are naturally present in water systems. Unless water systems are regularly used and maintained in a clean condition, the risk of Legionella increases as the water is allowed to stagnate and bacteria multiply. The bacteria need water as well as the presence of sludge, limescale, rust, algae or organic matter. All this provides a place for bacteria to attach and multiply. In a moist environment and at a temperature range of 20°C to 45°C, Legionella bacteria become active and a risk to health. In addition to legionella risk, drinking water retained within buildings may no longer be potable following a period of prolonged stagnation.

The COVID-19 pandemic has resulted in the closure of many buildings therefore you must consider Legionella risk before re-opening your business.

Under the Health and Safety at Work etc Act 1974 (HSWA) any employer, or persons in control of the premises is responsible for health and safety and need to take the right precautions to reduce the risks of exposure to legionella. All employers must undertake a Legionella risk assessment and those with 5 or more employees must document it.

The procedures taken by you to reduce the growth of the bacteria which causes Legionnaires' Disease will impact on how soon your business can be safely re-opened.

Examples of water systems associated with Legionella bacteria:

- Domestic water systems
- Cold/hot water storage tanks/cisterns
- Showers and toilets
- Wash hand basins and sinks
- Air-conditioning systems
- Spa pools
- Ornamental fountains
- Dishwashers
- Jetwashers

It is important to note that **any water system**, with the right environmental conditions, could be a source for legionella bacteria growth and you should consider it as part of your risk assessment.

How to control Legionella bacteria post COVID-19 lockdown?

Different types of water systems will require different precautions to be applied to manage the risk. If you have maintained regular (weekly) flushing and controlled the water temperature (ensured it remained below 20°C and over 45°C) then you may not need to take any further action.

For very simple buildings with low-risk systems flushing alone may be sufficient but for most buildings some form of disinfection is likely to be needed.

Example of low-risk system

- small building without people especially 'at risk' from legionella bacteria;

- where daily water usage is inevitable and sufficient to turn over the entire system;

- where cold water comes directly from a wholesome mains supply (no water tanks);

- where hot water is fed from instantaneous heaters or low storage volume water heaters (supplying outlets at 50 °C);

- where the only outlets are toilets and hand washbasins (no showers)

Some systems may be close to the definition of a low risk system and operators may choose flushing as a control measure based on their risk assessment.

Flushing stagnant water from a system will always be needed as an absolute minimum control measure. More complex systems are likely to need further control measures such as draining, cleaning and disinfection. Disinfection of a water system can be achieved thermally (normally hot water systems only) or chemically.

> If you have not maintained your water system throughout the lockdown and your system is not classed as low risk you will need to **engage the advice of a competent Legionella Risk assessor** and follow it.

Cleaning water systems

When cleaning your water system it is important you minimise the production of aerosols (mist and water droplets). Some of the examples on how to safely do so are described below:

- Taps

The flow rate should be slow to start, gradually building up over five minutes to full flow. Both the hot and cold water supply should be run. Those carrying this out should stand at least a metre from the drain area and ensure the room is well ventilated.

- Showers

Where possible the shower head should be lowered into the shower tray (or bath) so that it is as near the drain as possible and so minimise the spray of water droplets.

If the shower head cannot be lowered far enough to reach the shower tray it should be lowered into a bucket. If this is not possible, a plastic bag can be attached to the shower head with a hole cut in the bottom corner to allow the water to escape. These provide some containment of the water flow if it cannot reach a drain or sink easily. The contents would then be emptied away down a drain.

As with the taps, the flow rate should be slow to start, gradually building up over five minutes to full flow. Both the hot and cold supply should be run. Once cleaned, the shower head and pipe can be cleaned and disinfected and, where necessary, de-scaled using a suitable de-scaling solution - follow the manufacturers' instructions.

- Toilets

Ensure toilet seat is fully closed before flushing.

For cleaning of water storage tanks and more complex systems you should seek services of competent contractor.

Ongoing management and maintenance of the water system

Once your business is safely re-opened it is vital you maintain your controls:

- Monitor hot and cold-water temperatures to avoid water temperatures between 20°C and 45°C.

- Avoid water stagnation by keeping the water moving.

- Avoid having areas of pipework where the water is not regularly used.

- Avoid the build-up of materials which harbour bacteria, other microorganisms or provide nutrients for microbial growth such as sludge, limescale, rust, algae or organic matter.

- Control the release of any water spray.

- Maintain the cleanliness of the system and the water within it.

Further information:

For detailed guidance please see HSE website:
https://www.hse.gov.uk/healthservices/legionella.htm .

or contact:

Ealing Council Workplace Safety
healthandsafety@ealing.gov.uk
t: 0208 825 6666