

THE CONTROL OF LEGIONELLA

Legionella is a bacteria, the most dangerous being Legionella pneumophila. Infection by Legionella pneumophila can result in pneumonia and other potentially life-threatening effects.

SOURCE

Legionella bacteria is widespread in natural water sources and has been found in rivers, lakes, mud and soil. However, Legionella can also colonise man-made recirculating hot and cold water systems such as storage tanks, calorifiers (hot water tanks) and air conditioning systems. The bacteria will happily multiply at water temperatures between 20°C and 45°C and where there are nutrients to feed on such as sediment, dirt, scale and algae, which can often be found in stagnant water.

ROUTE OF INFECTION

Legionellosis, which is the name of the disease, is caused by the inhalation of airborne droplets which contain legionella bacteria. However, infection can only occur under certain conditions which permit the growth and multiplication of the organism, and then from the creation of droplets which can be inhaled.

WHY IS THE CONTROL OF LEGIONELLA IMPORTANT AFTER THE LOCK DOWN

If your hot and cold water system has not been used for some time any legionella bacteria that might be present within the system may have had the opportunity to multiply, and thereby become a potential source of infection. This will then present a real risk to persons becoming infected, particularly at water outlets where water droplets will be created and could be breathed in, such as at shower outlets.

THE PREVENTION OF LEGIONELLOSIS

Legionellosis can be prevented and controlled by eliminating the conditions which permit the multiplication of legionella bacteria, as follows –

Check your cold-water storage tank to ensure it is properly covered and there is no debris, scale, rust, sediment or sludge in the bottom, or algae growing. If there is, drain the tank, clean it and refill. Use a chlorine solution to clean the tank.

The cold water that comes through your taps is likely to come direct from the

mains, so the temperature should be well below 20°C. However, if it has been standing for a while it may have had the opportunity to rise above 20°C. Make sure you flush the water through for at least two minutes before use. This applies to both your hot and cold water systems, run the water for a few minutes to ensure all the standing water has been flushed out. The greater the length of pipe work the longer you will need to run the water to ensure all stagnant water has been flushed out.

If you have not used your hot water tank (calorifier) for at least a week heat the water in the tank to over 60 °C for at least one hour. Circulate the hot water through the system at 50°C. Hot water will kill the bacteria. However, be careful that the hot water does not create a risk of scalding.

Clean your shower heads and any other fittings where there has been a potential for slime and dirt to accumulate. Wash the fittings in a chlorinated water solution. Remember, anything that can create water droplets/spray can provide a route for infection.

More complex equipment such as air conditioning units which use stored water which could be sprayed out into the atmosphere may require a person with knowledge and expertise of the equipment to ensure it does not pose a risk of legionella infection.

Remember, it is your responsibility to risk assess what is required to safeguard the health and safety of all those you employ and visit your premises.