

Legionella – Employee Factsheet

What is Legionella?

Legionella is a type of bacteria that is responsible for causing the illness commonly known as Legionnaires' Disease. Legionella bacteria are commonly found naturally in rivers, lakes and reservoirs where they do not cause any harm.

Legionella bacteria can also be found in purpose-built water systems including cooling towers, evaporative condensers, hot water systems and whirlpool spas. In these types of water systems the water is maintained at an ideal temperature for the legionella bacteria to grow.

Conditions which increase the risk of legionella being present and causing a risk to health include:

- water is re-circulated as part of the water system
- water being stored in any part of the system at temperatures between 20°C and 45°C (warm water)
- the presence of nutrients for the bacteria to grow on, such as rust, sludge, scale and organic matter
- conditions are ideal for bacteria to multiply
- where is the potential for water droplets and aerosols to be produced by the water system.

What is Legionnaires Disease?

• Legionnaires' Disease is a pneumonia-like illness caused by breathing legionella bacteria deep into the lungs, either in tiny droplets of water (aerosols), or by breathing in particles that are contaminated by legionella after the water has evaporated.

• It can also be contracted through drinking water contaminated with legionella, however there is no evidence of person-to-person spread of the disease.

• The incubation period for Legionnaires' Disease is usually three to six days, however symptoms may develop any time between two and ten days after being exposed.

• Symptoms usually begin with high fever, chills, headache and muscle pain. A dry cough and breathing difficulties are also common, and some patients also suffer diarrhea, vomiting and delirium/confusion.

• Legionnaires' Disease can usually be treated successfully with antibiotics, however it can be fatal in around 12% of cases.

• Anyone can contract Legionnaires' Disease however several sectors of the population appear to be at greater risk – men aged 45 and over, heavy drinkers and smokers, those with chronic respiratory or kidney disease and the immuno-compromised.

Risk assessment and record keeping for legionella

The risk assessment should be carried out by someone who knows what they are doing – this could be the employer or person in control of the premises, or it could be an external contractor.

- Whoever carries out the risk assessment must have experience in identifying and assessing the risks of exposure to legionella bacteria, and also know how to make sure the necessary control measures are put in place.

- Part of the risk assessment should involve talking to employees about legionella.

- The risk assessment should be reviewed at least every two years.

- If there are five or more employees, documented records must be kept of the main findings of the risk assessment. The records must contain certain information such as the written control scheme and details of its implementation, and results of any inspection, test or check carried out, the date and by whom.

- Records of the risk assessment must be kept for the time for which they are valid and for at least two years after that. Inspection records should be kept for five years.

Where is Legionella found?

The employer/person in control is responsible for carrying out a risk assessment to identify sources and risks of legionella. It is really important to understand what water systems are present, the equipment associated with the system such as pumps, heat exchangers, showers etc. and all the parts that make up these systems. The risk assessment must look at whether the system is likely to create a risk of exposure to legionella and whether:

- water is stored or re-circulated in any part of the water system
- the water temperature in all or any part of the system is between 20°C and 45°C
- there are sources of nutrients, such as rust, sludge, scale or organic matter
- water droplets are capable of being produced and that they could be widely dispersed eg showers, or aerosols from cooling towers
- susceptible individuals are present (employees, residents, customers, visitors etc.).

What must you do about legionella?

- Employers/people in control of premises have a legal duty to protect the health, safety and welfare of all those affected by their workplace. As well as this, other Regulations require employers/people in control of workplaces to assess if there is any risk of exposure to bacteria such as legionella. If so, they should take measures to prevent exposure or if prevention is not possible then they must control the risk from legionella.
- Landlords have the same duty for the properties they own. To control any risks from exposure to legionella to their staff, residents, guests, tenants and customers by putting in place appropriate control measures. This is especially important in residential buildings where there are vulnerable people living, such as retirement flats or assisted living.
- Employees have a general duty to take care of their own health and safety. In the case of legionella this would involve not putting themselves at risk by making sure equipment is used properly and by following any other control mechanisms that have been put in place to control the risk of exposure to legionella. Also, where protective equipment has been provided, the employee has a duty to make sure it is worn properly and any problems with it reported to the manager. Employees must also take note of any training, information and instructions provided to them about the risk of coming into contact with legionella.

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