

Legionnaires' disease: Is it your problem?

The Ashdale legionella risk assessment approach.

*Legionnaires' disease **is** a concern for anyone with management responsibility for activities or facilities involving the use of water in the built environment.*





Legionnaires' disease is a potentially fatal form of pneumonia. It kills around 10%–15% of sufferers, and for survivors is very often highly debilitating.

In the UK, approximately **300 cases per year** are reported to the Health Protection Agency, but it is widely recognised that Legionnaires' disease is under-diagnosed and under-reported, and estimates of the real figure vary up to 5,000 per year in the UK. Legionnaires' disease is contracted by breathing in an aerosol of water heavily infected with the **legionella bacteria**. Legionella is naturally occurring in small concentrations in fresh water. It can proliferate in man-made water systems, and so can cause a risk to persons.

Large outbreaks (such as the recent outbreaks in Edinburgh and South Wales) are often caused by badly maintained cooling towers or evaporative condensers. Other large outbreaks occur in hospitals or other facilities with highly vulnerable people. Sporadic cases and even

major outbreaks can however be caused by a wide variety of water systems. The HSE, WHO and others agree that **legionella found in ordinary hot and cold water systems is a cause of disease and death.**

“Legionnaires' disease is contracted by breathing in an aerosol of water heavily infected with the legionella bacteria.”

For this reason, the HSE guidance document L8 “The control of legionella bacteria in water systems” states that **a legionella risk assessment should be carried out on any water system which could store water and generate an aerosol.** In practice, this includes almost all water systems.

What is legionella?

Legionella is a family of bacteria, occurring naturally in fresh water. It grows readily in water systems in buildings. It usually invades the human body by being carried deep into the lungs in an aerosol breathed in by the victim. There are many different groups and sub-types of legionella, so that laboratory analysis is often able to identify where a particular victim was infected.



What kind of premises are at risk?

Particularly high risk is often associated with cooling towers and evaporative condensers, because water which has stagnated is turned into droplets (aerosol) which can be blown by the wind over a large area to infect many people.

A Jacuzzi or similar presents a risk because water is re-circulated at ideal temperature, and the water picks up nutrients from the bodies of bathers. Aerosol is generated by the bubbling action, and people are breathing very close to the surface of the water.

Hospitals and nursing homes are high risk mainly because the patients and residents are typically more vulnerable. **Vulnerability to Legionnaires' disease increases with age and with various underlying illnesses and conditions.**

Given the right conditions however, the water system in any type of premises can host legionella bacteria, and infect people using the water. Every year, individuals contract Legionnaires' disease from normal hot and cold water systems, in premises not specifically seen as high-risk. Occasionally, serious outbreaks are caused by such systems.

The Ashdale legionella risk assessment approach

Ashdale Engineering's legionella risk assessment surveyors bring with them Ashdale's heritage of providing safety advice to a wide variety of clients large and small. Our clients include large utility companies, MOD establishments, health authorities, as well as many smaller concerns, offices, workshops etc.

We provide a legionella risk assessment which is:

- **Fully compliant:** As members of the Legionella Control Association, and accredited to BS EN ISO 9001, Ashdale Engineering can give you confidence of high quality. Our legionella risk assessment is carried out and reported in accordance with BS 8580. An Ashdale Engineering legionella risk assessment is your first step to fully complying with HSE guidance on legionella risk.
- **Relevant:** The legionella risk assessment will be written with an understanding of your particular organisation's needs, size and structure. Whether you already have a full water safety plan in place, or whether this brochure is the first you have read about legionella, **Ashdale Engineering will write a legionella risk assessment which is right for you.**
- **Legible:** A surprising number of legionella risk assessments are extremely large and hard to read. Ashdale Engineering understands that a report is only useful if you the client are able to read and act on it. We produce reports which are clearly structured and clearly written. **No padding, no jargon.**



What is a legionella risk assessment?

To know how to control legionella risk on your premises, you need a clear idea of **what the risks are**. An Ashdale Engineering legionella risk assessment will tell you:

- **What risks are found in your system;**
- **How effective your current controls are;**
- **What you need to do to achieve full control.**

“The legionella risk assessment report will contain advice about what measures need to be taken to control legionella.”



An Ashdale surveyor will attend your site to carry out a full survey of the system. The survey will include an audit of your present maintenance programme.

The legionella risk assessment report will include a full description of the 'as currently installed' system, including detailed schematic drawings.



Perhaps most importantly, **the legionella risk assessment report will contain advice about what measures need to be taken to control legionella.**

This will include advice on any improvements that should be made to the system, and detailed recommendations for future planned maintenance.

If you have a large facility made up of many buildings, each requiring a separate legionella risk assessment report, we will also provide a management summary - a separate document bringing together the major issue from around the site and summarising your legionella risk and control.

To find out more about how Ashdale Engineering can help you achieve full compliance with legionella guidelines and legislation, contact us:

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