

Legionnaires Disease Information

Legionnaires Disease is caused by a bacterium called Legionella pneumophila. Infection is carried in a fine spray of airborne water (aerosols) carrying the bacterium which are breathed in. There is no evidence to show that the illness can be caught from someone who has already been infected, nor from drinking water carrying the bacterium.

Those most at risk from infection are smokers and those already suffering from respiratory illness. However, even healthy people can be infected. Most cases have been in people between the ages of 40 to 70 years, and men are more likely to be affected than women.

The Legionella bacterium is found in natural water supplies and soil; it is also common in re-circulating and hot water systems. Outbreaks have occurred in or near large building complexes such as hotels, hospitals, offices and factories.

Reducing the risk of Legionnaires Disease

The Legionella bacterium is widely spread, and it is not possible to prevent it from getting into water systems, however, risk can be reduced by following some simple precautions:

Hot and Cold Water Services

- Tanks and pipe-work should be designed so that water is not allowed to stand undisturbed for long periods.
- Tanks should be well covered to prevent the entry of dust, dirt and vermin, and should be periodically inspected, cleaned and disinfected.
- Water temperatures between 20 c and 45 c should be avoided. Hot water should be stored at 60 c and circulated at 50 c.
- Only water system fittings and materials complying with water authority byelaws should be used.

Cooling Towers

- Cooling towers and their associated water systems need to be well designed, maintained and operated. Fitting drift eliminators, which reduce the escape of spray, is particularly important.
- Systems, and the water in them, should be cleaned and disinfected at least every 6 months. Water should be treated to prevent corrosion and the multiplication of bacteria.
- New or replacement cooling towers or evaporative condensers should be dry systems unless a suitable and sufficient assessment of substances hazardous to health is undertaken in advance which manages the risks.

Landlords of residential accommodation

There is a legal duty for landlords who provide residential accommodation to consider, assess and control the risks of exposure to Legionella to their tenants.

Simple control measures can help control the risk of exposure to legionella such as:

- flushing out the system prior to letting the property
- avoiding debris getting into the system (eg ensure the cold water tanks, where fitted, have a tight fitting lid)
- setting control parameters (eg setting the temperature of the calorifier to ensure water is stored at 60°C)
- make sure any redundant pipework identified is removed.

It is important that water is not allowed to stagnate within the water system and so there should be careful management of properties left vacant for extended periods (eg student accommodation left empty over the summer vacation). As a general principle, outlets on hot and cold water systems should be used at least once a week to maintain a degree of water flow and minimise the chances of stagnation. To manage the risks during non-occupancy, consideration should be given to implementing a suitable flushing regime or other measures such as draining the system if it is to remain vacant for long periods.

Further advice regarding landlord responsibilities can be found at

<http://www.hse.gov.uk/legionnaires/legionella-landlords-responsibilities.htm>

Other Water Systems

Precautions are necessary wherever conditions exist that are likely to support the growth of the bacterium and there are means of dispersing water droplets e.g. Spa baths. Such systems pose a reasonably foreseeable risk as they are a recognised source of diseases caused by infectious agents including Legionella pneumophila. For further information, please refer to <http://www.hse.gov.uk/legionnaires/spa-pools.htm>

What Happens in the Event of an Outbreak

Hospitals and Public Health England monitor the incidence of Legionnaires Disease so that cases and outbreaks can be quickly identified. As soon as an outbreak is identified a team of specialists mount an investigation to:

- Identify the source.
- Identify the people likely to be affected.
- Ensure that the contaminated water system is treated as quickly as possible.

More information

<http://www.hse.gov.uk/legionnaires/index.htm>