

Tenants' guide to Legionella

What is it?

Legionellosis is a collective term for diseases caused by legionella bacteria including the most serious Legionnaires' disease, as well as the similar but less serious conditions of Pontiac fever and Lochgoilhead fever.

Legionnaires' disease is a potentially fatal form of pneumonia and everyone is susceptible to infection. The risk increases with age but some people are at higher risk including:

- People over 45 years of age
- Smokers and heavy drinkers
- People suffering from chronic respiratory or kidney disease
- Diabetes, lung and heart disease
- Anyone with an impaired immune system

The bacterium *Legionella pneumophila* and related bacteria are common in natural water sources such as rivers, lakes and reservoirs, but usually in low numbers.

They may also be found in purpose built water systems such as domestic hot and cold water systems, spa pools and evaporative condensers.

If conditions are favourable, the bacteria may grow increasing the risks of Legionnaires' disease and it is therefore important to control the risks by introducing appropriate measures outlined in:- Legionnaires' disease –

The control of legionella bacteria in water systems (ACOP L8) available from. **www.hse.gov.uk/pubns/books/l8.htm**

Where does it come from?

Legionella bacteria are widespread in natural water systems, e.g. rivers and ponds.

However, the conditions are rarely right for people to catch the disease from these sources. Outbreaks of the illness occur from exposure to legionella growing in purpose built systems where water is maintained at a temperature high enough to encourage growth, e.g. hot and cold water systems, spa pools, cooling towers and evaporative condensers used in all sorts of premises (domestic, work and leisure).

How do people get it?

People contract Legionnaires' disease by inhaling small droplets of water (aerosols) suspended in the air containing the bacteria. Certain conditions increase the risk from legionella if:

- The water temperature in all or some parts of the system is between 20°C - 45°C, which is suitable for growth.
- It is possible for breathable water droplets to be created and dispersed, e.g. aerosol created by shower heads, water outlets, spa baths.
- Water is stored and/or re-circulated
- There are deposits that can support bacterial growth providing a source of nutrients for the organism, e.g. rust, sludge, scale, organic matter and biofilms
- Outlets are used infrequently
- The system contains dead ends or unused pipe work, e.g. hot water feed for cold fill only machine.

Reducing the risk of Legionella

The risk of Legionella causing illness in small domestic properties is exceedingly low.

Possibly the biggest risk is when you have been away from the property for more than a week or so, e.g. on holiday, or there are additional taps/showers/toilets that are not used daily.

Good practice in this situation is simply:

- Run the hot water taps (a very unlikely source anyway) for a minimum of 60 seconds

- Flush shower heads for a minimum of 60 seconds (to do this, remove from holder before turning on the shower, then hold down over plug hole to lessen risk of inhaling sprayed droplets).
- Shower heads should be dismantled and cleaned of scale and debris every 3 - 6 months.
- Keep the hot water on your boiler system at a temperature of minimum 50°C - 60°C **WARNING: BE AWARE OF SCALDING!**
- Flush the toilet twice to circulate fresh water through the system and empty the cistern

Symptoms of Legionnaires' disease

Legionnaires' disease usually develops two to 10 days after exposure to legionella bacteria. It frequently begins with the following signs and symptoms:

- Headache
- Muscle pain
- Tiredness
- Chills
- Fever that may be 104 F (40 C) or higher

By the second or third day, you'll develop other signs and symptoms that may include:

- Cough, which may bring up mucus and sometimes blood

- Shortness of breath
- Chest pain
- Gastrointestinal symptoms, such as nausea, vomiting and diarrhoea
- Confusion or other mental changes

Although Legionnaires' disease primarily affects the lungs, it occasionally can cause infections in wounds and in other parts of the body, including the heart.

A mild form of Legionnaires' disease — known as Pontiac fever — may produce signs and symptoms including fever, chills, headache and muscle aches. Pontiac fever doesn't infect your lungs, and symptoms usually clear within two to five days.