Water Safety at Home:
How to avoid Legionnaires' disease

What is Legionnaires' disease?

Legionnaires' disease is caused by bacteria called Legionella and is an uncommon form of pneumonia that may have serious consequences, particularly for older people.

The bacteria causing the disease exist naturally in the environment including rivers, lakes and reservoirs, usually in low numbers. They can also live in purpose-built water systems such as hot and cold water systems, taps, showers, spa pools and hot tubs. Infection occurs if you inhale tiny water droplets containing the bacteria. The bacteria must be inhaled into the lungs to cause the disease.

Legionella can survive in low temperatures, but thrive at 20 C (68 F) to 50 C (122 F). Temperatures of 60 C (140 F) and over will kill Legionella.

If conditions are favourable, the bacteria may multiply, creating conditions in which the risk from Legionnaires' disease increases. It is therefore important to control the risks.

How can I reduce the risk of Legionella in my home?

The risk of Legionella is very low, but you can take the following precautions. These are particularly important when you move into a new home or are returning after a long break.

Hot water systems

Hot water systems have the potential to harbour Legionella in places where there may be stagnant or warm water. Examples include shower heads, hot water taps, garden hoses and hot water storage vessels.

- It is important to run your shower or bath continuously for a few minutes when you move in/return after a long absence in order to flush through any bacteria.
- Hot water tanks should ideally be set to store water at 60 C or more to reduce the risk of Legionella multiplication. **Be aware that this temperature may be too hot for water supplied to showers and taps used for washing as it may cause scalding. This concern applies particularly where children or older people use the**

appliances. It is necessary to lower the water temperature at sanitary outlets to 45-50 C to reduce the risk of scalding.

- Hot water systems and filter devices attached to shower and tap outlets should be maintained regularly according to the manufacturers' instructions.

- All hot and mixed sanitary outlets (shower, hand basin, bath taps) that are not used on a daily basis should be flushed weekly by turning on the hot water at full flow rate for at least 15 seconds. Flushing will help eliminate stagnant water and minimise the multiplication of bacteria that may be present.

- All shower heads, taps and filter devices should be thoroughly cleaned and de-scaled on a regular basis to prevent the build up of lime scale, mould and algae growth.

Fountains
Fountains can create aerosols by splashing water, and are a particular risk if the water is warm or heated intermittently by submerged lighting. Regular cleaning is recommended.

Spa pools and hot tubs
Spa pools and hot tubs require careful maintenance, disinfection and frequent cleaning because warm water provides ideal conditions for the growth of Legionella. Aerosols can be created when spa pool jets are in use.

The correct use of spa pool/hot tub water chemicals and good management of disinfection, filtration and recirculation systems and pool surfaces will keep the water in a clean and safe condition.

It is important to refer the manufacturer's instruction regarding the maintenance of spa pools and hot tubs.

More information about the Health Protection Agency and Legionnaires' disease is available at http://www.hpa.org.uk

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