



Guide to
Legionella Risk Assessments
For Dental Practices



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Guide to Legionella Risk Assessments for Dental Practices

This guide has been prepared by Dental Support UK Ltd to help those involved in the provision of dental services, including dentists, dental support staff and service engineers to understand more about Legionella risk assessments including whether you need one, and what is involved if you do. The guide covers the following:

What is Legionnaires' disease?

Where do Legionella bacteria come from?

What is a Legionella risk assessment?

Do I need a risk assessment?

Who can carry out my risk assessment?

Where are the greatest risks?

Are there any areas that are exempt from the need for a risk assessment?

Do I need to keep records?

Is training required?

How often should I review my risk assessment?

Do I have any other obligations?

Where can I get further assistance?

What is Legionnaires' disease?

Legionnaires' disease is a potentially fatal pneumonia caused by Legionella bacteria. Infection is caused by breathing in small droplets (an aerosol) of water contaminated by the bacteria, and in some cases may also result from aspiration of Legionella contaminated water from the mouth into the lungs.

Legionnaires' disease can potentially affect anyone, however some of us are more susceptible to infection than others including those over 50 years of age, smokers and heavy drinkers, those suffering from chronic respiratory or kidney disease; and people whose immune system is impaired.

Where do Legionella bacteria come from?

Legionella bacteria are common in natural water courses such as rivers and ponds, and the bacteria are frequently found in the water supplied by utility companies. As a result, Legionella bacteria may contaminate and grow in water systems such as cooling towers; and hot and cold water services in buildings.

Under optimum conditions Legionella bacteria thrive at temperatures between 20°C and 45°C, although they can survive, usually in a dormant state, at lower temperatures. The bacteria are killed by high temperatures and so hot water distribution systems should be maintained above 50°C and hot water heaters above 60°C. Water systems at these temperatures create a risk of scalding and so have to be managed in many healthcare premises, often through the use of thermostatic mixing valves. These blend water to around 42°C for hand washing and bathing and so re-create conditions that are conducive to the growth of Legionella bacteria.

At temperatures below 20°C the bacterium grows only slowly and generally does not represent a significant risk. However, it is not always possible to maintain temperatures below 20°C, particularly as an EC Directive permits water utility companies to supply water to buildings at temperatures up to 25°C.

What is a Legionella risk assessment?

A Legionella risk assessment is an assessment of a water system with regard to the opportunities the system provides for supporting the proliferation of Legionella bacteria and their discharge in the form of aerosols. It should identify all aspects of a building's or facility's water systems, including hot and cold water services (eg taps and showers), dental water lines, industrial and process systems such as pumps, heat exchangers, cutting machines, pressure washers, etc that are likely to create a Legionella risk. The assessment should establish:

- If there are conditions present which will encourage Legionella bacteria to multiply, eg is the water temperature between 20°C and 45°C?
- If small water droplets or aerosols will be produced and, if so, could they be inhaled by people? Cooling towers have been shown to distribute Legionella infected aerosols over very large areas and so represent a high risk to a large number of people. Aerosols from other water systems such as taps and showers will be more confined and may cause sporadic cases of Legionnaires' disease rather than clusters of cases or outbreaks.
- If it is likely that anyone considered to be more "at risk" will come into contact with contaminated water droplets. For example, the elderly and immuno-suppressed.

Do I need a Legionella risk assessment?

Yes, all UK dental premises need a Legionella risk assessment.

In the UK, all dental premises are required to have a written scheme and a Legionella risk assessment for controlling any identified risks in accordance with the Health & Safety Executives Approved Code of Practice and Guidance document (also known as L8) titled “Legionnaires’ disease: the control of Legionella bacteria in water systems”.

The HSE’s ACOP L8 is further supported by the Department of Health’s guidance documents:

- Health Technical Memorandum 01-05: Decontamination in Primary Care Dental Practices (HTM01-05)
- Health Technical Memorandum 04-01: The control of Legionella, hygiene, “safe” hot water, cold water and drinking water systems (HTM04-01)

Compliance with HTM01-05 and HTM04-01 will satisfy the requirements of the HSE’s ACOP L8.

Who can carry out a Legionella Risk Assessment?

All premises are required to have a Legionella risk assessment and this risk assessment should be carried out by a *Competent Person*. Those specialist companies carrying out risk assessment should be accredited with an appropriate recognised organisation such as the Legionella Control Association. HTM01-05 identifies the following:

Competent Persons who are members of the Legionella Control Association are able to produce written schemes to the required standard.

A risk assessment for the water services will be necessary to identify potential problems in the system (for example, excess storage capacity, temperature distribution problems, low water usage, inappropriate materials, etc). The risk assessment should be carried out by a Competent Person.

Section 19.2 – Health Technical Memorandum 01-05: Decontamination in primary care dental practices

Where are the greatest risks?

The greatest risks associated with Legionella bacteria come from aerosol generating equipment and situations that allow stagnant water conditions. This can include cooling towers, evaporative condensers; and hot and cold water systems which have all been associated with outbreaks of Legionnaires' disease. However, there are many other systems that have also been found to present a potential risk of Legionella infection including dental water lines, spa baths, vehicle washes, humidifiers, etc.

Are there any areas that are exempt from the need for a risk assessment?

Only dry systems, ie where water is not used. However, certain systems do present a reduced Legionella risk, but a Legionella risk assessment must still be completed.

Do I need to keep records?

Good record-keeping procedures are essential. You must record the significant findings of your Legionella risk assessment, operational plan and details of all maintenance, inspection and testing activities; and any subsequent significant changes to the system that affects the risk.

You need to retain your records for at least five years and as a minimum they should clearly record the following:

- The names and positions of those responsible for performing the various tasks under the written scheme;
- A Legionella risk assessment and a written scheme of actions and control measures;
- Details of precautionary measures that have been carried out, including sufficient detail to identify that the work was completed correctly and when the work was carried out.

Is training required?

Yes, Legionella training is required.

The Registered Manager of a dental practice is responsible for the implementation of a suitable training programme for those staff members with responsibility for the management and control of Legionella risks. HTM01-05 identifies the following:

The Registered Manager should implement a programme of staff training to ensure that those appointed to devise strategies and carry out control measures are appropriately informed, instructed and trained, and should be assessed as to their competency.

Section 19.3 – Health Technical Memorandum 01-05: Decontamination in primary care dental practices

How often should I review my risk assessment?

A Legionella risk assessment must be reviewed after a maximum period of two years or sooner if substantial changes to the water systems have been carried out; or if the building or system has seen a change in use since the original assessment. If the system or building is the subject of an outbreak enquiry (Legionnaires' disease), then a re-assessment will most likely be required, irrespective of the time since the last assessment.

A review is not necessarily a re-assessment; if no changes have been made to the facilities and the risk management programme is seen to be effective, then a statement to this effect may be made by the Registered Manager. However, if you are unsure, we recommend you seek specialist advice.

Do I have any other obligations?

In addition to a written scheme and a Legionella risk assessment for controlling any identified risks, the Registered Manager should also ensure that an operational plan is in place for each site under their control.

If you have a cooling tower or evaporative condenser on your site you must, under the Notification of Cooling Tower and Evaporative Condensers Regulations, also notify your Local Authority in writing with details of where it is located. If these systems are later removed your Local Authority must again be informed.

Where can I get further assistance?

For further assistance concerning your legal duties or expert advice concerning Legionella risk assessments and specialist training for dental practices, please contact us at:

Dental Support UK Ltd

Tel: 01483 225550

Fax: 01483 212572

E-mail: enquiries@dental-support.co.uk

Further references

- Legionnaires' disease, The control of Legionella bacteria in water systems; Approved Code of Practice and Guidance – *Published by the Health & Safety Executive*
- Health Technical Memorandum 01-05: Decontamination in primary care dental practices (HTM01-05) – *Published by the Department of Health*
- Local self-assessment audit for assessing implementation of HTM01-05; Decontamination in primary care dental practices and related infection prevention and control issues – *Published jointly by the Department of Health and the Infection Prevention Society*
- Health Technical Memorandum 04-01: The Control of Legionella, hygiene, “safe” hot water, cold water and drinking water systems – *Published by the Department of Health*