



Legionnaires' Disease in Schools NEU guidance for members, reps and local officers

This briefing gives NEU guidance on Legionnaires' disease, its symptoms, treatments and preventative measures that should be taken in schools to avoid outbreaks of the disease.

What is Legionnaires' disease?

Legionnaires' disease is a rare form of pneumonia. It was named after an outbreak among a meeting of the American Legion in 1976.

Who is susceptible?

Not everyone is equally susceptible to the infection. Those with the greatest risk appear to be smokers and people with underlying poor health issues, in particular, respiratory tract problems. Heavy drinkers are also more susceptible. Men are at greater risk than women by a ratio of 3:1 and it usually affects the middle-aged or elderly; the disease is uncommon in younger people and very rarely affects those under the age of 20.

How common is it?

Cases of Legionnaires' disease are rare. In 2017 there were 693 cases in England and Wales reported to Public Health England.

Symptoms and treatment

Initial symptoms are high fever, headache, chills and muscle pain. Some patients then develop pneumonia, diarrhoea and delirium. The incubation period is from two to ten days. There is no evidence of person-to-person spread.

Because the symptoms are similar to those of flu, it is not always easy to diagnose. A blood or urine test will establish the presence of the disease.

The illness is treated with antibiotics.

What causes Legionnaires' disease?

Legionnaires' disease is caused by legionella bacteria. The bacteria are commonly found in stagnant water in ponds, pipes and water-cooling systems. The hazard occurs when the bacteria are contained within water droplets which are dispersed and inhaled.

The legal background

Approved Code of Practice (ACoP)

[The Health and Safety Executive \(HSE\) ACoP](#)

Compliance with the ACoP is the responsibility of suppliers of products and services and also employers, who are required to appoint a 'responsible person' to take managerial



responsibility for ensuring pipework and water cooling systems are maintained in accordance with the ACoP. Maintenance must be carried out by competent persons.

Schools

All workplaces, including schools require a risk assessment. Schools tend not to have complex air conditioning systems that involve the use of cooling systems which have been the source of major legionella outbreaks in the past. However, schools may have fixtures such as drinking fountains, showers and spa baths which may give rise to sprays or aerosols containing legionella bacteria and it is here where the major risk lies.

Employers should have in place a risk assessment, appropriate measures for dealing with any problems highlighted and a system for recording the application of those measures, with a log book available for inspection. The risk assessment should be reviewed annually, and more frequently following any changes to water systems and following any failure in control measures.

Particular hazards are: old and unused or infrequently used showers, water features, machine tool coolant systems, spa baths, hose reel and sprinkler systems, poorly maintained ageing hot and cold water systems, roof tanks, hidden unused pipework and emergency eyewashes.

Modern water systems if poorly designed can represent a major legionella hazard if temperatures are not adequate, usage is low and the materials used in the construction of the system are poor. Cold water needs to be kept below 20°C and hot water above 50°C.

The detection of legionella bacteria in a school water system does not represent an immediate hazard if there is no chance of the bacteria getting out. Provided the bacteria remain isolated in the pipework, and prompt and adequate efforts are made to deal with the problem, there should be no cause for major concern.

Small electrically operated air conditioning systems frequently used in school IT suites should not be a hazard.

Legionnaires' disease is notifiable under the Health Protection (Notification) Regulations 2010, and as such any medical practitioner who makes this diagnosis or suspects a case will inform their local health protection team. Public Health England is the body responsible for monitoring notifiable diseases, and they can investigate any cases with an aim of preventing further outbreaks.

Further guidance



General information on the prevention of legionella outbreaks can be found on the [HSE website](#)

More specific information on the diagnosis and treatment of Legionnaire's disease is provided by [Public Health England](#)

Legionnaires' disease in schools – checklist for NEU health & safety reps and advisers

1. All school buildings new or old should be subject to a Legionella survey and an appropriate risk assessment should be prepared. Where necessary a safe system of working should be prepared with suitable checking and recording procedures.
2. Generally hot water storage system temperatures should reach 60°C and water should be distributed such that the outlet temperature reaches 50°C after one minute.
3. Where there is a cold water storage system, the tank must be inspected regularly and kept below 20°C at all times, eg by means of appropriate insulation. Pipework should be as short and direct as possible – especially where it serves intermittently used taps and appliances. The need for infrequently used taps and appliances should be reviewed. Appropriate forms of Legionella control should also be applied to sprinkler pipework.
4. A temperature monitoring and recording scheme should be in place. With some systems a flushing routine may be required. This is particularly important for little used outlets. Old, unused showers and pipework should be removed.
5. Water hygiene log books should be kept on school sites. These should hold copies of the risk assessment, any remedial action and ongoing monitoring. The results of any monitoring, text or check must be kept for five years.
6. Fountains and water features should be treated with an appropriate biocide; spa baths should be treated to an appropriate disinfection/cleaning regime.
7. Any large volume air conditioning system should be subject to an appropriate maintenance and testing scheme.
8. If the school deems it necessary to remove children from the school, staff should also leave the premises as they can be more vulnerable to infection than the children.
9. Staff should not enter an area where possibly infected water is leaking or spraying out, the flow of water must be turned off elsewhere or specialist help must be obtained.