

Legionellosis

Legionnaires' disease is a severe and potentially fatal form of pneumonia caused by the bacterium *Legionella pneumophila*. The bacteria thrive in warm water environments such as hot tubs, cooling towers, and large plumbing systems.

Last reviewed
18 June 2026

What is Legionellosis?

Legionellosis is caused by the bacterium *Legionella pneumophila* and includes pneumonic form (Legionnaire's disease) and the non-pneumonic form (Pontiac Fever).

Legionnaires' disease is a severe and potentially fatal form of pneumonia caused by the bacterium *Legionella pneumophila*. The bacteria thrive in warm water environments such as hot tubs, cooling towers, and large plumbing systems. When people inhale contaminated water droplets or vapour, they can become infected with Legionella.

Symptoms:

Legionnaire's disease presents as pneumonia, with a dry non-productive cough and severe flu-like symptoms. It can occur sporadically as an uncommon cause of community-acquired pneumonia, or as cases associated with environmental sources such as hospitals, hotels and factories.

Symptoms of Legionnaires' disease often mimic those of pneumonia and can include high fever, chills, cough, muscle aches, and shortness of breath. It primarily affects individuals with weakened immune systems, the elderly, and those with underlying health conditions.

Legionnaires' disease can sometimes occur in outbreaks, often linked to shared water systems in buildings or public spaces.

Prevention:

Preventive measures include maintaining proper water hygiene in cooling systems, ensuring clean and well-maintained water sources, and following public health guidelines to minimise the risk of infection.

Information for the public

Key resources:

- [Public Health England: Legionnaires' disease: guidance, data and analysis](#)
- [Legionnaires' disease - NHS](#)
- [Legionella | Health and Safety Executive NI](#)
- [Factsheet: Legionnaires' disease](#)

Treatment

Prompt diagnosis and treatment with antibiotics are crucial to prevent complications and serious outcomes. At present, there is no vaccine that can protect against legionella bacteria.

Guidance for health professionals

- [Legionnaires' disease - NHS](#)
- [Legionella | Health and Safety Executive NI](#)
- [Notifiable Diseases - NI Infection Control Manual](#)

Data and surveillance

Public health surveillance and monitoring play an essential role in minimising the impact of this potentially dangerous bacterial infection.

- Further information on Legionnaires' disease can be found on [NHS website](#)
- [Legionellosis: Northern Ireland surveillance report 2014 to 2024](#)
- [Notifications of Infectious Diseases \(NOIDs\) | HSC Public Health Agency](#)
- [Notifiable Diseases - NI Infection Control Manual](#) - Where urgent advice or action is required, the Public Health Agency Duty Room should be contacted by telephone. Alternatively, the Public Health Agency can be contacted by

telephone. (0300 555 0114)

Share this page

- [Share by email](#)
- [Share on X](#)
- [Share on Facebook](#)
- [Share on LinkedIn](#)
- [Share on WhatsApp](#)
- [Download as PDF](#)

Was this page useful?

Yes No

Thank you for your feedback.

Sorry to hear that. [Tell us what went wrong.](#)