

Legionella pneumophila Infection

Many different species of bacteria called *Legionella* are commonly found in the environment and some of these are known to cause illness in people. Infection by *Legionella* causes a disease known as legionellosis.

Infection with *Legionella pneumophila* is called Legionnaires' disease. *Legionella* generally infects the lung, causing pneumonia, which is often very severe. Legionnaires' disease occurs most commonly in the warmer months.

Symptoms include:

- > fever
- > cough
- > chest pain
- > breathlessness
- > diarrhoea.

People of any age may be infected, but the disease is more common in middle aged and older people and people whose immune system is weak. Men are affected more frequently than women. Risk of infection is increased by:

- > smoking
- > chronic heart or lung disease
- > diabetes
- > kidney failure
- > some forms of cancer
- > immunosuppression, especially if on steroid medication
- > being 50 years or older.

Diagnosis is usually made by a series of blood tests. The bacteria may sometimes be grown from a sample of sputum or lung fluid. Some infections may be identified rapidly by testing a sample of urine.

Legionella pneumophila are widespread in natural water sources and often colonise manufactured water systems. The bacteria must be inhaled to cause disease.

Incubation period

(time between becoming infected and developing symptoms)

2 – 10 days, though may be longer.

Infectious period

(time during which an infected person can infect others)

Person-to-person spread does not occur.

Treatment

Antibiotic treatment is required. Severe cases may need to be treated in hospital and may require intensive care.

Control of spread

- > *Legionella* have been isolated from many sources including ice machines, hot water systems, air-conditioning cooling towers, hot and cold water taps, showers, nebulisers, spa baths and spa pools, hydrotherapy pools and ornamental fountains. Inhalation of aerosols generated by these systems can serve as a route of infection. Ongoing maintenance of these systems significantly reduces the risk of *Legionella* growing and being released into the surrounding environment. These systems must be maintained according to the manufacturer's instructions and any relevant legislation.



***Legionella pneumophila* infection is a notifiable disease**

Useful website

- > SA Health *Legionella* regulations, guidelines and fact sheets
<http://www.health.sa.gov.au/pehs/environmental-health-index.htm>