

# Legionnaires' disease



## What is legionnaires' disease?

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

## How do you get legionnaires' disease?

The bacteria causing legionnaires' disease exist naturally in the environment, but problems arise when they contaminate man-made water systems, such as cooling towers, hot and cold water supply systems in buildings, and spa pools and hot tubs. Infection occurs if you inhale tiny contaminated water droplets, as the bacteria must be inhaled into the lungs to cause the disease.

Legionnaires' disease can sometimes be spread by the wind if the bacteria become airborne, such as from cooling towers on buildings. It cannot spread from person to person.

Anyone can be affected by legionnaires' disease, but it is more common and more severe in men, people aged over 50 years, smokers, people with weakened immune systems and those who already have underlying lung conditions.

## What are the symptoms of legionnaires' disease?

The severity of the symptoms varies greatly, ranging from a mild cough to rapidly fatal pneumonia. There may be initial influenza-like symptoms such as:

- Fever
- Loss of appetite
- Headache
- Feeling generally unwell
- Tiredness
- Dry cough

Other symptoms such as diarrhoea and vomiting can sometimes develop, along with blood-streaked phlegm, feelings of confusion and occasionally delirium. Death occurs in 10 to 15 per cent of healthy people because of progressive pneumonia with respiratory failure or shock, and multi-organ failure.

## How long does it take for symptoms to develop?

It can take between two to ten days for the disease to develop. In rare cases, it can be as long as three weeks.

## How is it treated?

People with legionnaires' disease always need antibiotic treatment once the diagnosis is confirmed by a laboratory. Appropriate antibiotic treatment has a good rate of success in curing the illness.

## How is it prevented?

At present, there is no vaccine available for legionnaires' disease. The UK has regulations which aim to ensure that water supplies and air conditioning systems do not harbour the bacteria which cause legionnaires' disease.

## **The Health Protection Agency and legionnaires' disease**

We monitor outbreaks of legionnaires' disease and look for any patterns or trends which show possible connections between people who are affected. We provide advice on controlling outbreaks and work with colleagues in environmental health to track the source that has caused the illness, so that we can stop other people from becoming infected. We also work with colleagues in Europe in the control and investigation of cases of legionnaires' disease associated with holiday resorts abroad.

More information about the Health Protection Agency and legionnaires' disease is available on our website at <http://www.hpa.org.uk>

If you have concerns about your health contact NHS Direct on 0845 4647, visit their website <http://www.nhsdirect.nhs.uk>, or see your family doctor.

If you have any further questions,  
please contact

### **Health Protection Agency**

Centre for Infections  
61 Colindale Avenue  
London  
NW9 5EQ  
Tel 020 8200 4400  
Fax 020 8205 9185  
[www.hpa.org.uk](http://www.hpa.org.uk)

October 2006  
© Health Protection Agency