

Environmental Health Fact Sheet

Legionnaires' Disease

WHAT IS LEGIONNAIRES DISEASE?

Legionnaires' disease is an infection of the lung caused by the *Legionella* bacteria. This bacteria causes a type of pneumonia which can be fatal. It usually takes 2 to 10 days for the symptoms to develop after inhaling the bacteria.

Legionella presents in two forms –

- *Legionella* pneumonia (Legionnaires' disease); and
- A mild flu-like illness (Pontiac fever).

WHERE DOES IT COME FROM?

Legionella bacteria is found naturally in low levels in the environment. In the absence of effective treatment *Legionella* can breed to high numbers in water cooling systems (cooling towers), warm water systems or water heaters, shower heads, spa pools or potting mix. The most common way Legionnaires' disease is contracted is by breathing air contaminated with *Legionella*. Air is contaminated when aerosols containing *Legionella* are released. The aerosol needs to be very small so that it can penetrate deeply into the lung.

Legionnaires' disease is not transmitted from person to person.

WHAT ARE THE SYMPTOMS OF LEGIONNAIRES DISEASE?

A general feeling of being unwell usually occurs in the first 24 to 48 hours. Common symptoms include:

- A sudden high temperature (fever)
- Stomach cramps and diarrhoea
- Dry cough
- Aches and pains in the muscles
- Chills
- Feeling confused
- Headaches

Not all of the symptoms need to be present for diagnosis. People with these symptoms should see their doctor immediately.

HOW IS LEGIONNAIRES DISEASE DIAGNOSED?

Specialised laboratory tests are necessary to establish a definite diagnosis of Legionnaires' disease. Tests can be made from secretions from normally sterile sites such as lung tissue or sputum from the lower respiratory tract.

Note: Legionnaires' disease is a notifiable disease under the *Public Health Act 1991*.

WHO IS MOST AT RISK?

- older people, with existing health problems such as a respiratory disease.
- people who are taking drugs which suppress the immune system, e.g. liver or kidney transplant patients.
- heavy smokers and heavy drinkers.

WHAT IS THE TREATMENT?

Treatment is with an antibiotic. For those people with serious symptoms such as severe difficulty in breathing admission to hospital may be required.

Time of treatment can vary, but normal expected time is 10 to 14 days. Rehabilitation therapy may be needed.

WHAT IS BEING DONE ABOUT LEGIONNAIRES DISEASE?

The Government introduced a revised Public Health (Microbial Control) Regulation in 2000 which states that regular treatment, cleaning and maintenance of water cooling systems, warm water systems and water storage units must be performed by the occupier of a building. The occupier is encouraged to hire competent people to do installation and maintenance of water-cooling systems.

An operation and maintenance manual should be kept by the building occupier and be readily accessible at all times.

These laws are enforced by local councils who have a list of all water cooling systems and warm water systems in their area. In addition, inspections of appropriate facilities are carried out by environmental health officers.

IS THERE AN INCREASE IN LEGIONNAIRES DISEASE?

Recent evidence indicates that cases of Legionnaires' disease due to water cooling systems and warm water systems is stable in NSW.

The Health Department and local councils are constantly working to reduce outbreaks of Legionnaires' disease. This is done through enforcement of maintenance laws and education of building owners, occupiers and managers. Ongoing research is also helping to fight the disease.

FURTHER INFORMATION:

For further information and advice contact the Environmental Health section of Hawkesbury City Council on Ph.(02) 4560 4571, or email andrew.matthews@hawkesbury.nsw.gov.au.