



## Legionnaires disease

The facts

Legislation

Legionella L004

**Daikin UK** air-to-air air conditioning equipment does not generate the conditions required for legionella. As with all home heating products, Daikin air-to-water heating systems have to pay attention to the hot water storage tank and ensure the controls are set for a sanitising period each day.

Recent outbreaks in the UK have once again brought to the public's attention concerns relating to the role of air conditioning equipment in the spread of legionnaires disease.

**The bacteria is not found in air cooled air conditioning systems, so where is it found?**



DAIKIN UK  
RECYCLING  
END OF LIFE  
AIR CON  
UNITS

# Recent outbreaks in the UK have once again brought to the public's attention concerns relating to the role of air conditioning equipment in the spread of legionnaires disease.

## What is Legionnaires disease?

Legionellosis is an infection caused by a bacterium named Legionella Pneumophila. Legionella are natural inhabitants of water and can be detected in rivers, lakes and streams. The disease has two distinct forms:

- Legionnaires disease, the more severe form of infection which includes pneumonia
- Pontiac fever, a milder illness

Legionnaires disease acquired its name in 1976 when an outbreak of pneumonia occurred among persons attending a convention of the American Legion in Philadelphia. Later the bacterium causing the illness was named Legionella.

## What are the usual symptoms?

Patients with Legionnaires disease usually have fever, chills and a cough. Some patients have muscle aches, headache, tiredness and loss of appetite. Chest X-rays often show pneumonia. It is difficult to distinguish Legionnaires disease from other types of pneumonia by symptoms alone; other tests are required for diagnosis.

Patients with Pontiac fever experience fever and muscle aches and do not have pneumonia. They generally recover in 2 to 5 days without treatment. The time between the patients' exposure to the bacterium and the onset of illness for Legionnaires disease is 2 to 10 days; for Pontiac Fever it is generally a few hours to 2 days.

## Who gets Legionellosis?

People of any age may get Legionnaires disease, but the illness most often affects the following groups of people:

- Middle aged and older people
- Smokers
- Those with chronic lung disease
- Those with a lowered immune system

## How is Legionnaires disease contracted?

The most common accepted reason for contracting Legionnaires disease is by people inhaling mists that come from a water source contaminated with Legionella bacteria. The chain of events that is required for infection to take place includes:

- Conditions suited to the multiplication of the organism, i.e. water temperatures in the range 20°C - 45°C and the presence of sludge, scale, rust, algae and organic matter to provide nutrient
- A means of creating breathable droplets
- Contact with the droplets by a susceptible person

The disease cannot be passed from person to person.

## Where can the Legionella bacteria be found?

The conditions described in the previous paragraphs can result in the bacteria being found within:

- Cooling towers
- Whirlpool spas
- Showers – fed from hot water storage tank
- Humidifiers

**The bacteria is not found in air cooled air conditioning systems because there is no water inside the system.**

## How to prevent Legionella

Since Legionella is widespread in the environment, it cannot be prevented from entering water systems. However the risk of an outbreak can be reduced by ensuring that regular maintenance, cleaning and treatment of susceptible equipment is undertaken. Domestic hot water systems should be controlled to raise the water to over 60°C for a predetermined time, at regular intervals (daily for example).

## Daikin UK distributes equipment that currently does not fall into any of the aforementioned categories.