

CHP investigates cluster of Legionnaires' disease in community

The Centre for Health Protection (CHP) of the Department of Health is today (December 4) investigating a cluster of Legionnaires' disease (LD) cases, involving three patients, and stressed the importance of using and maintaining properly designed man-made water systems and that susceptible groups should strictly observe relevant precautions.

The CHP announced two community-acquired LD cases on November 26, involving a 61-year-old male patient and a 76-year-old female patient. The CHP's subsequent genetic analysis of the *Legionella pneumophila* serogroup 1 culture isolate from the respiratory specimens of the two patients revealed an identical sequence-based type.

Subsequently, one additional community-acquired LD case was recorded by the CHP. The male patient, aged 69 with underlying illnesses, lives in Tower 3A, The Wings IIIA, 19 Tong Yin Street, Tseung Kwan O. Genetic analysis of the infecting bacterial strain is in progress.

"Epidemiological investigations revealed that the three patients had no travel history in the incubation period (IP). However, they all either resided in or visited The Wings IIIA in the IP. Investigations are ongoing to identify potential sources of infection, if any," a spokesman for the CHP said.

"The CHP has already collected relevant water samples from potential sources, namely a water fountain at the main entrance and a waterfall between Towers 2 and 3, in The Wings IIIA for testing. As a precautionary measure, the management office of The Wings IIIA suspended the operation of the water fountain and the waterfall," the spokesman added.

"Men, people aged over 50, smokers, alcoholics and persons with weakened immunity are more susceptible to LD. Some situations may also increase the risk of infection, including poor maintenance of water systems leading to stagnant water; living in areas with old water systems, cooling towers or fountains; using electric water heaters, whirlpools and spas or hot water spring spas; and recent stays in hotels or vessels," the spokesman said.

Legionellae are found in various environmental settings and grow well in warm water (20 to 45 degrees Celsius). They can be found in aqueous environments such as water tanks, hot and cold water systems, cooling towers, whirlpools and spas, water fountains and home apparatus which support breathing. People may get infected when they breathe in contaminated droplets (aerosols) and mist generated by artificial water systems, or when handling garden soil, compost and potting mixes.

Immunocompromised persons should:

- Use sterile or boiled water for drinking, tooth brushing and mouth rinsing;
- Avoid using humidifiers, or other mist- or aerosol-generating devices. A shower may also generate small aerosols; and
- If using humidifiers, or other mist- or aerosol-generating devices, fill the water tank with only sterile or cooled freshly boiled water, and not water directly from the tap. Also, clean and maintain humidifiers/devices regularly according to manufacturers' instructions. Never leave stagnant water in a humidifier/device. Empty the water tank, wipe all surfaces dry, and change the water daily.

The public should observe the health advice below:

- Observe personal hygiene;
- Do not smoke and avoid alcohol consumption;
- Strainers in water taps and shower heads should be inspected, cleaned, descaled and disinfected regularly or at a frequency recommended by the manufacturer;
- If a fresh water plumbing system is properly maintained, it is not necessary to install domestic water filters. Use of water filters is not encouraged as clogging occurs easily, which can promote growth of micro-organisms. In case water filters are used, the pore size should be 0.2 micrometres (μm) and the filter needs to be changed periodically according to the manufacturer's recommendations;
- Drain and clean water tanks of buildings at least quarterly;
- Drain or purge for at least one minute the infrequently used water outlets (e.g. water taps, shower heads and hot water outlets) and stagnant points of the pipework weekly or before use;
- Seek and follow doctors' professional advice regarding the use and maintenance of home respiratory devices and use only sterile water (not distilled or tap water) to clean and fill the reservoir. Clean and maintain the device regularly according to the manufacturer's instructions. After cleaning/disinfection, rinse the device with sterile water, cooled freshly boiled water or water filtered with 0.2 μm filters. Never leave stagnant water in the device. Empty the water tank, keep all surfaces dry, and change the water daily; and
- When handling garden soil, compost and potting mixes:
 1. Wear gloves and a face mask;
 2. Water gardens and compost gently using low pressure;
 3. Open composted potting mixes slowly and make sure the opening is directed away from the face;
 4. Wet the soil to reduce dust when potting plants; and
 5. Avoid working in poorly ventilated places such as enclosed greenhouses.

The public may visit the CHP's [LD page](#), the [Code of Practice for Prevention of LD](#) and the [Housekeeping Guidelines for Cold and Hot Water Systems for Building Management](#) of the Prevention of LD Committee, and the CHP's [risk-based strategy](#) for prevention and control of LD.