

Legionnaires' Disease: Water Testing and Prevention at Home

This fact sheet provides information about *Legionella*, Legionnaires' disease, and what to expect if your in-home water is tested as part of a health department investigation.

About *Legionella* and Legionnaires' disease

Legionnaires' disease is caused by a type of bacteria called *Legionella*. *Legionella* are found in the environment, usually in water. They grow best in warm water, like the kind found in cooling towers, large plumbing systems, decorative fountains, hot water tanks and hot tubs. Often, *Legionella* grow in these environments when water systems are not hot enough or well maintained. Most healthy people do not become infected with *Legionella* after exposure, but some people at higher risk may get infected and develop symptoms like pneumonia. People get Legionnaires' disease when they breathe in water vapor or water that contains *Legionella*.

What happens when cases of Legionnaires' disease are reported?

Health departments investigate reports of Legionnaires' disease. Investigations consider:

- who became ill;
- when illnesses started;
- where people were when they were potentially exposed, and possible sources of *Legionella* at those locations.

Investigators look for patterns among these factors, which may sometimes indicate a common source. They also interview the ill person (or people close to the ill person) to see if further actions are needed to address potential sources of *Legionella*. Drinking water testing occurs during these investigations when information suggests that the water could be a possible source of exposure to the ill individual(s).

Water testing

The health department might request permission to test the water in a home as part of a *Legionella* investigation. This is useful to rule out the home water system as a source of exposure. Neighbors or others on the same water system may also be asked to participate. However, we do not recommend testing of individual homes when there are no cases of Legionnaires' disease.

If a resident is ill, and not well enough to grant permission for in-home water testing, the health department may reach out to family members, to the property owner, or wait until permission is granted by the resident after he/she has recovered.

The results of in-home water tests are normally available 10 to 14 days after the laboratory receives them. The in-home test results will also include contact information for questions.

If results show high levels of *Legionella*, the health department will recommend steps to reduce levels in your household water systems. Follow-up water testing is not usually recommended for homes after corrective work is completed.

Who is at risk?

People at higher risk of getting sick after being exposed to *Legionella* are:

- 50 years of age or older;
- current or former smokers;
- those with chronic lung disease, such as Chronic Obstructive Pulmonary Disorder (COPD) or emphysema;
- those with a weakened immune system from diseases like cancer, diabetes, or kidney failure;
- those who take drugs that suppress (weaken) the immune system (like after a transplant operation or chemotherapy).

Advice for people at risk

These steps may help people who are at higher risk of illness to prevent conditions that could allow *Legionella* and other bacteria to grow in water used at home.

- **Let your water run.** Run your faucets for 3 minutes if they have been out of use for 3 or more days, or if there has been any disruption of water service to your home or neighborhood (e.g., plumbing work, a boil water order). Turn the faucets on low to avoid splashing.
- **Drain garden hoses.** Avoid leaving water-filled hoses lying in the sun. Warm, stagnant water promotes the growth of *Legionella* and other bacteria.
- **Use the type of water recommended by your in-home medical equipment or health care provider.** This includes humidifiers, CPAP or BiPAP machines, and nebulizers. Be sure to follow manufacturer use and maintenance instructions. Depending on your health, your medical health professional may recommend sterile water.
- **Change water filters.** Follow manufacturer instructions for cleaning and replacing any water filters. This includes whole-house water filters and point-of-use filters (tap or refrigerator water/ice maker).
- **Check the chlorine level in your pool and hot tub.** Chlorine can kill *Legionella*. Monitor levels regularly to make sure chlorine is at manufacturer recommended levels. People at high risk for Legionnaires' disease might consider only using public, New York State-regulated, pools and hot tubs.
- **Consider draining decorative fountains.** Fountains, fish tanks, and other devices that recirculate water in or around the home should be avoided by anyone at high risk for Legionnaires' disease.
- **Consider raising your hot water heater temperature.** A hotter water temperature of 130-140° F kills *Legionella*, but also increases the risk of hot water burns. If you raise your water heater above 120° F, take extra precautions to mix hot and cold water at the tap to avoid scalding from using only the hot water.
- **Flush your hot water heater twice a year.** Follow manufacturer recommendations for maintenance.
- **Consider a water softener** if you have hard water, to minimize the build-up of scale in your piping. Scale build up can provide a breeding ground for *Legionella*.



Department
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