

Legionnaires' Disease Making a Comeback



Thousands of people are diagnosed with Legionnaires' disease each year. (Getty Images)

Legionnaires' disease is back on the rise, with several new outbreaks in June alone. A Hawaiian island resort, a Pittsburgh [hospital](#) and a Maryland senior-living community are all battling pneumonia-causing Legionella bacteria in their water systems. Older adults are at higher risk for getting sick after breathing in water droplets containing Legionella. Here's what you should know about this respiratory illness.

Outbreak Response

The first case in May could have been a coincidence. Just four days after moving into The Lutheran Village at Miller's Grant, a continuing care retirement community, a resident was diagnosed with Legionnaires' disease. On June 10, the Ellicott City, Maryland, facility informed residents and staff of what was then a single case of [pneumonia](#).

It was unclear whether the resident had been exposed in the community or elsewhere. But a second and then a third resident (who also recently moved in) developed

Legionnaires' disease. By then, administrators had brought in a consultant, Janet Stout, director of the Special Pathogens Laboratory in Pittsburgh, and were already taking precautions.

The facility "pulled out all the stops" to address the issue, says Stout, an associate research professor at the University of Pittsburgh and a Legionnaires' expert. That meant restricting access to tap water and providing bottled water to drink; adapting ways of cooking, tooth-brushing, shaving and showering; and bringing in a team to assess the water distribution system and test water samples. Treating water systems with extra chlorine is the first step for reducing Legionella bacteria, Stout says.

In a three-hour meeting, Stout spoke with residents and staff members to address their many questions. "Can someone get Legionnaires' disease from somebody else who has it?" was a major concern. No, she told them. There's no person-to-person transmission with Legionella. Also reassuring: In general, people who've had Legionnaires' usually won't get it a second time.

From the time Legionnaires' was suspected, staff and residents had been educated about the disease and kept in the loop about guidelines from the Howard County Health Department, says Lisa Albin, director of church and public relations at Lutheran Village at Miller's Grant. "Our first round of test results came back very well," she says. While Legionella levels in the water system have been markedly reduced, she says, the bacteria were not completely eliminated. Now staff is awaiting the second round of results.

As hyper-chlorine water treatment and testing continue, residents face a choice. Should they find a temporary home with relatives or a nearby hotel, or stay and be extra cautious when drinking, bathing and preparing meals? Most residents are staying put, Albin says.

Lurking Legionella

The number of people diagnosed with Legionnaires' disease increased nearly fourfold between 2000 and 2014, the Centers for Disease Control and Prevention [recently reported](#). Each year, about 5,000 people are diagnosed with Legionnaires' disease, and at least 20 outbreaks are reported, mostly in buildings with large water systems. About 7 percent of cases reported from outbreaks were fatal, according to the CDC.

Air conditioning cooling towers that aren't well-maintained are considered primary risk factors for Legionnaires' outbreaks, says Dr. William Schaffner, medical director of the

National Foundation for Infectious Diseases.

Besides cooling towers – *not* individual air conditioning units – Legionella can spread through aerosols around hot tubs, decorative fountains and even vegetable-refreshing sprayers at the supermarket, says Schaffner, who is a professor of preventive medicine at Vanderbilt University School of Medicine.

Most people in good health won't develop the disease even after exposure to Legionella. Smokers and people with weak immune systems are at higher risk. Seniors face extra risk for several reasons. They're more likely to have previous respiratory conditions like [chronic obstructive pulmonary disease](#), or COPD. Their immune systems may be weaker with age or from taking certain medications.

Bacteria may also affect older people through aspiration – when water gets into the lungs. "Many people are familiar with aspiration pneumonia, which is very common in hospitalized patients," Stout says. "But what it means to most of us is that experience you have of something going down the wrong pipe – that choking feeling."

People also aspirate in their sleep, Stout says, and many older people have swallowing disorders that make aspiration more likely. "So bacteria is in the upper airway because we drink water or even inhale the mist. And then we aspirate, and that's a way the bacteria gains entry into the lung," Stout says.

Protecting Seniors

Here are some steps for avoiding Legionnaires' disease or catching it early to start proper treatment.

Recognize symptoms. After someone is infected, it takes two to 10 days for symptoms to appear. Patients start feeling tired and weak, followed by high fever, severe cough and [diarrhea](#). "Relatively speaking, if the patient with pneumonia has accompanying diarrhea, that should make you think of Legionnaires,'" Schaffner says. Productive cough with blood or sputum is another sign. Others include nausea and vomiting, headaches, muscle aches, shortness of breath and chest pains.

However, symptoms may vary for older adults, Stout points out: "Sometimes, their only symptom will be mental-status changes or delirium-like changes."

Request a Legionnaires' test. Many diagnoses are made through a simple laboratory test called a urine antigen test. Some less-common Legionella strains are isolated through a sputum test. A senior who gets sick with likely symptoms should speak up,

Stout says: "If you go to the doctor and they say, 'You have pneumonia,' you can advocate for yourself and say, 'I want to be tested for Legionnaires' disease.'"

Take extra precautions. A senior with a weakened immune system, such as an organ or bone-marrow transplant recipient, is more susceptible to infections, including Legionnaires'. People in very high-risk groups might ask their doctor about boiling tap water before drinking, Stout says, or using a special filter to take out bacteria and parasites.

Start antibiotics early. It's important to start treatment as soon as possible to get the infection under control. Several types of antibiotics are effective against Legionella. However, Stout says, certain [antibiotics](#) that may work with other types of pneumonia don't necessarily work for Legionnaires'. The CDC offers a [Legionnaires' fact sheet](#) for clinicians.

Keep perspective. While Legionnaire's disease rates are rising, it's not common. "The numbers on Legionnaires' disease show that it causes about 2 to 5 percent of all the community-acquired pneumonias that require hospitalization," Stout says. And with early detection and treatment, most people get better.

Albin says of the three Legionnaires' patients at Miller's Grant, all have been discharged from the hospital and are recovering. All the residents have been "tremendous," she says, with a positive attitude throughout the process. "But we're ready for it to be over," she adds. "That's for sure."