

Wet weather spawns more Legionnaires' disease cases

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By Elizabeth Fiedler

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-Stephen Ostroff, Pennsylvania Department of Health

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Jim Lang sweeps silt left behind from floodwaters of the Schuylkill River in the aftermath of hurricane Irene. Experts think the heavy rains may have produced conditions for proliferation of legionella bacteria. (AP Photo/Matt Rourke)

This fall, Pennsylvania has documented the highest number of cases of Legionnaires' disease since 2003. More cases of the water-borne bacterial pneumonia are being blamed on our wet summer.

Stephen Ostroff, the acting physician general for the Pennsylvania Department of Health, said it's common to see a rise in reported cases of Legionnaires' disease during the summer.

"However this summer, especially late summer in August and September, we've seen a rise in the number of reported cases that far exceeds what we've seen in most of the recent years in the state by a factor of about twofold," said Ostroff.

Ostroff said the disease is popping up in areas inundated by the late summer rains.

"Legionnaires' disease can happen in a variety of ways," he said. "It usually happens when water that contains the legionella bacteria is aerosolized and people inhale that water. We think that the heavy rains may have produced conditions for proliferation of legionella bacteria that would translate to increased likelihood of exposure to the bacteria."

Ostroff said the bacteria hang out in hot water heaters, fountains and in cooling towers as they did in the namesake 1976 case when American Legion convention-goers in Philadelphia suffered from an outbreak of the disease.

New Jersey Health Department spokeswoman Donna Leusner said the Garden State also has seen a rise in incidence: 146 reported Legionnaires' disease cases so far in 2011 compared with 103 by this point in 2010. But Leusner says it's not a reason for concern.

Delaware too has seen an increase. So far there have been 19 reported cases--five more than this time last year.

"I've been studying Legionnaires' disease for over 30 years," said Janet Stout, director of the Special Pathogens Laboratory in Pittsburgh. "I started just a few years after the Philadelphia outbreak at the American Legion convention and ... I've not seen a spike like this that can be explained other than these recent weather events."

Stout said she has been in contact with public health officials and microbiologists in Ohio, Pennsylvania, and New York. "They're all stating the same thing," she said. "Basically, that there's been a spike in reported cases of Legionnaires' disease that they haven't seen in the history of reporting."

Stout conceded that some of the increase may come from better diagnosis. But she doubts that explains the whole spike.

"One thing we've seen over the last several years is this pattern where there's an increased number of cases after these weather events. Legionella, the bacteria, come into buildings in the incoming cold water. Legionella is more resistant to the chemicals like chlorine that are in water. So when you have these water events, you might see an increase in the turbidity of water so more nutrients are in the water and legionella takes advantage of that situation to multiply."

Stout said she's chagrined to still be talking about basic preventive measures.

"One of things that I feel very strongly about is that hospitals should be looking to improve the quality of their water so that legionella and other water-borne pathogens are not a threat to those patients," she said. "What we would like to see is that water is tested for legionella before any cases occur."

Stout says a simple action could prevent people from getting sick.