

FREQUENTLY ASKED QUESTIONS

LEGIONNAIRES' DISEASE

What is Legionnaires' disease?

Legionnaires' disease is a form of pneumonia (lung infection) caused by the *Legionella* bacteria. Read more about the disease here: <https://epi.dph.ncdhhs.gov/cd/diseases/legionellosis.html>.

How severe is the illness?

Legionnaires' disease can be very serious and even cause death. Most cases can be successfully treated with antibiotics and healthy people usually recover from the infection.

How do people get Legionnaires' disease?

The disease is spread through breathing in tiny water droplets containing the *Legionella* bacteria. Legionnaires' disease is not spread from person to person.

Legionella bacteria can be found naturally in freshwater environments such as lakes and streams. It can make people sick when it grows in manmade water systems such hot tubs, cooling towers, large plumbing systems, and decorative fountains. Legionnaires' disease outbreaks happen when a lot of people breathe in water droplets from one of these sources.

Who is at risk?

Most people who are exposed to *Legionella* do not get sick, but some people are more likely to get sick than others. People may be more likely to get sick if they are aged 50 years or older; are a current or former smoker; have a weak immune system or take medications that weaken the immune system; or have other medical conditions like diabetes, chronic lung disease, liver failure, or kidney failure.

What are the symptoms?

Legionnaires' disease is very similar to other types of pneumonia (lung infection). People with Legionnaires' disease usually have a high fever, chills, cough, and fatigue (tiredness) or weakness. Some people also get muscle aches or headaches.

When do people start to feel sick?

Most people start to feel sick between 2 and 14 days after breathing in the bacteria so people should watch for symptoms for about 2 weeks after exposure.

What is the treatment?

Legionnaires' disease can be treated with certain antibiotics and most healthy people make a full recovery.

Where can I get more information?

- NC DHHS: Legionellosis: <https://epi.dph.ncdhhs.gov/cd/diseases/legionellosis.html>
- CDC: Patient Facts: Learn More about Legionnaires' disease: <https://www.cdc.gov/legionella/about/>

CASES ASSOCIATED WITH NC MOUNTAIN STATE FAIR

Did people get Legionnaires' Disease from the Fair?

We believe people were exposed to *Legionella* bacteria at the Mountain State Fair. We found that people who got sick with Legionnaires' disease were much more likely to have visited one particular building (Davis Event Center) at the Mountain State Fair, walked by the hot tub displays, and visited during the second half of the fair than people who did not get sick.

How many people became sick after attending the Mountain State Fair?

We identified 136 cases of Legionnaires' disease or Pontiac Fever in residents of multiple states and North Carolina counties who attended the 2019 NC Mountain State Fair, which took place September 6-15, 2019 at the Western North Carolina Agricultural Center in Fletcher, NC.

Please go to the state website at <https://epi.dph.ncdhhs.gov/cd/legionellosis/outbreak.html> for the final outbreak report.

Who was involved in the investigation?

Multiple Western NC county health departments, the NC Department of Health and Human Services, the NC Department of Agriculture and Consumer Services, other state health departments, and the U.S. Centers for Disease Control and Prevention (CDC) contributed to the investigation.

How did you learn about the cases?

Doctors and labs are required by law to report all Legionnaires' disease cases to public health. On September 23rd, two local health departments told us about an increase in reports of Legionnaires' disease and we quickly identified that most cases were in people who had attended the Mountain State Fair.

What did Public Health do about this?

We immediately initiated an investigation with local health departments to identify the source of the outbreak and ensure that there was no ongoing risk to the public. We interviewed people who became sick with Legionnaires' disease, alerted clinicians, and notified the public. We conducted a joint site visit of the WNC Ag Center to identify sources of aerosolized water and collected water samples. We then conducted further interviews of fair attendees to determine which fair activities and locations were associated with the outbreak. We have released the final report from our investigation here (LINK).

I (or my family member) visited NC Mountain State Fair and became ill afterwards. What should I do?

The length of time from exposure to when people experience symptoms is generally between 2-14 days. This time window for the fair has now passed and state health officials do not expect any additional cases to be reported. If you experience symptoms consistent with pneumonia, please contact your health care provider.

Is the Western North Carolina Agricultural Center safe?

People can get Legionnaires' disease when they breathe in small droplets of water in the air (also called aerosolized water) that contain the bacteria. Health officials have not identified any significant ongoing

sources of aerosolized water at the WNC Ag Center. For additional steps taken by the NC Department of Agriculture and Consumer Services, please see <https://www.wncagcenter.org/events/2019/legionnaires-statement>.

What is public health doing to reduce the risk of Legionnaire's disease at Fairs?

In response to this outbreak and investigation, DPH and the U.S. Centers for Disease Control and Prevention (CDC) have developed and distributed guidance for vendors and public health practitioners on how to minimize risks from hot tubs and other display equipment that aerosolizes water at temporary events. Following this investigation, CDC released similar guidance nationally (<https://emergency.cdc.gov/han/han00422.asp>).