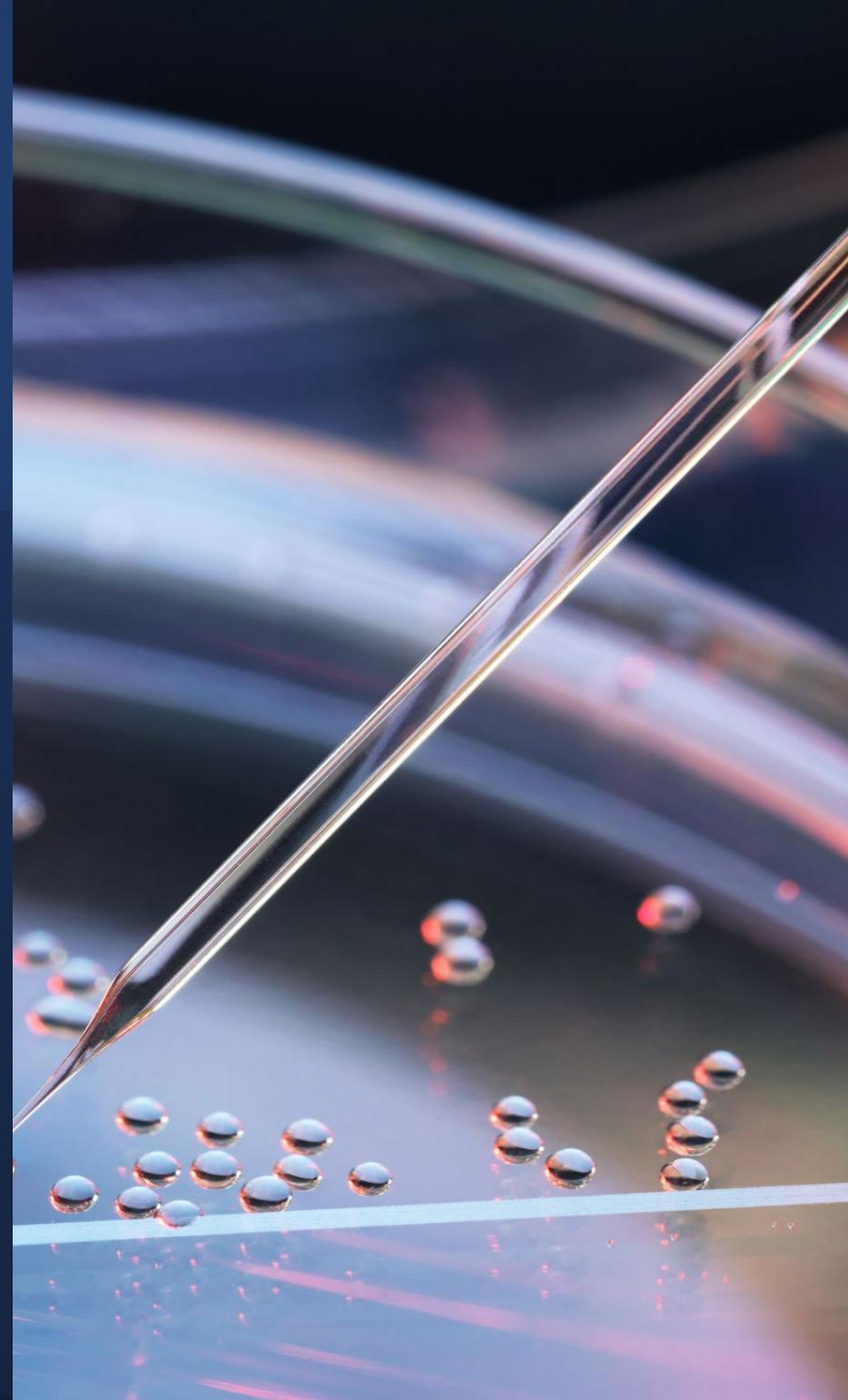


Introduction to *Legionella* and Legionnaires' Disease

Southern Nevada Health District



What is *Legionella* and its origin?

- In 1976, a group of attendees at the American Legion Convention in Philadelphia became ill with a mysterious pneumonia.
- After further investigation, it was discovered that the cause of the pneumonia was a bacteria later named *Legionella pneumophila*.



What disease does *Legionella* cause?

- Legionnaires' disease is a bacterial disease that may cause respiratory illness or pneumonia.
- *Legionella* bacteria can also cause a less severe illness called Pontiac fever



Is it a new
bacteria?

- No. While the bacterium was only identified following the 1976 convention, earlier cases have been confirmed by various health departments nationwide as early as 1947.



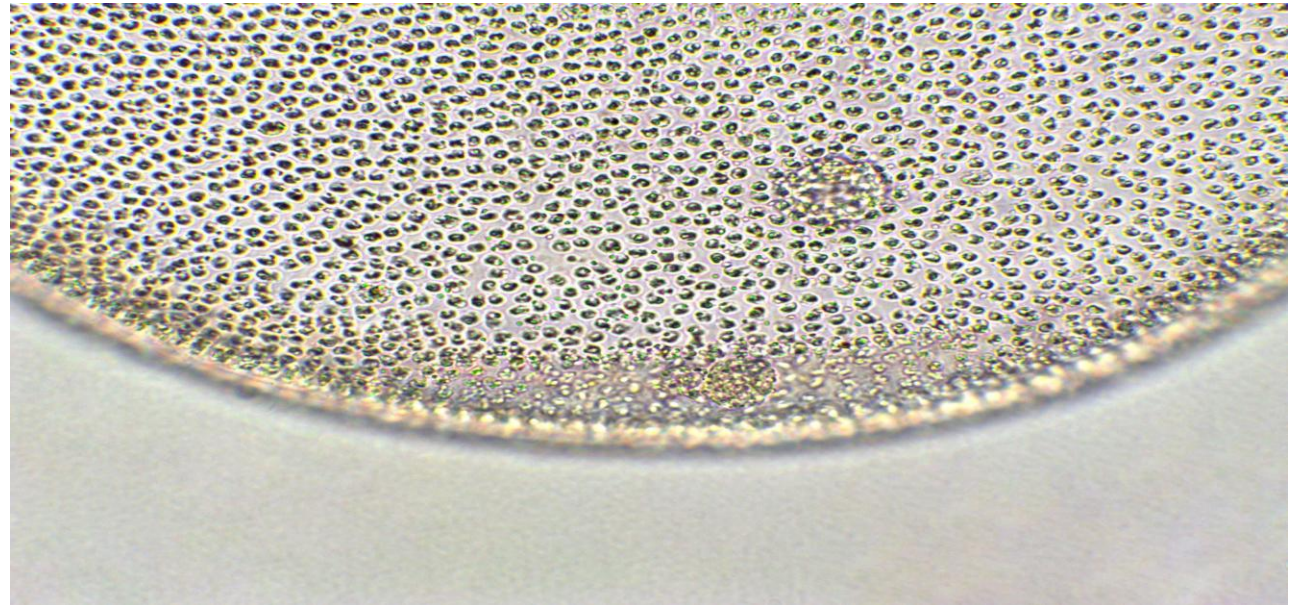
Where is *Legionella* found?

- *Legionella* naturally exist in the environment, usually in water (such as lakes and streams).
- *Legionella* is also found in building water systems, cooling towers, misting systems, decorative fountains and whirlpool spas.



What facilitates the growth of *Legionella*?

- Grow best at 68 to 115 F°
- Water stagnation and lack of adequate disinfectant in the water system
- Biofilm formation in the water system



What is the
impact of
Legionella on
public health?

- According to the CDC:
 - Cases have been on the rise since 2000
 - Health Departments nationwide have reported nearly 10,000 cases of Legionnaires' disease in the United States in 2018
 - Illnesses have been reported throughout the year, and they tend to peak in the summer and early fall.
 - 1 in 10 people who get Legionnaires' Disease do not survive

How severe is Legionnaires' Disease?

- Legionnaires' disease can be very serious and can 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.
- According to the CDC, in general, people do not spread Legionnaires' disease to other people. However, this might be possible under rare circumstances.
- Outbreaks typically occur following the exposure of many individuals to a common source of the bacteria in the environment.



Who is at risk from *Legionella*?

- Most people who are exposed to *Legionella* do not get sick, but some people are more at risk than others.
- There are factors that can put people at an increased risk of getting sick:
 - being age 50 years or older;
 - being a current or former smoker;
 - having a chronic lung disease (like chronic obstructive pulmonary disease or emphysema);
 - having a weakened immune system or taking drugs that weaken the immune system (like after a transplant operation or chemotherapy);
 - having cancer; or having underlying illnesses such as diabetes, kidney failure, or liver failure

What are the symptoms of Legionnaires' Disease?

- Symptoms of Legionnaires' disease are similar to those of pneumonia so it may be difficult to diagnose.
- Signs of the disease can include: a high fever, chills, cough and fatigue or weakness. Some people may also suffer from muscles aches and headaches.



How soon do
symptoms
appear?

- Symptoms usually begin two to 14 days after exposure

Why is the Legionnaires' disease difficult to diagnose?

- Legionnaires' disease often causes symptoms similar to other illnesses such as flu or pneumonia.
- Since diagnosis depends on a culture of the organisms, a positive urine antigen test, or comparison of blood tests taken during and several weeks after the illness, the diagnosis may not be confirmed until after the person is well.

What is the
treatment for
Legionella
exposure?

- Certain antibiotics are effective in treating the disease.
- Early diagnosis and treatment are also important for recovery



References

- [Legionnaires Disease and Pontiac Fever | CDC](#)
- [Legionnaires Disease, Pontiac Fever Fast Facts | CDC](#)
- [Legionella Water Management Programs Overview | CDC](#)
- [Legionella: Developing a Water Management Program | CDC](#)

Questions?

snhd_ehoutbreaksupport@snhd.org