



## What is Legionella?

- Legionella is a bacteria that can cause a serious form of pneumonia (lung infection) called Legionnaire's Disease.
- Most people become infected with Legionella when they inhale water droplets that contain the bacteria.
- Legionella is found naturally in warm water and can thrive in places like hot tubs, cooling towers, decorative fountains, and hot water tanks.
- Swimmers can become infected by breathing in mist or steam from a contaminated hot tub or pool. Hot tubs require extra attention, as the bacteria thrive in the warm water and high heat can affect disinfectant and pH levels.

## Why is it important to prevent Legionella?

- Legionnaire's disease is a dangerous and sometimes fatal infection.
- High risk groups for Legionella infections include:
  - Individuals over the age of 50
  - Current and former smokers
  - Individuals with conditions that weaken their immune system
- Legionella is on the rise in Georgia, with 133 cases in 2016 compared to 55 in 2011 and 38 in 2006.
- In Georgia during 2016, 91% of reported individuals with Legionella infections were hospitalized, and 14% died.

## What you can do to stop the spread of Legionella

- Two or more Legionella cases associated with the same facility will trigger a public health investigation, including an environmental assessment and water testing.
- Disinfectant and pH levels should be checked twice daily for pools and every four hours for hot tubs and spas and any issues should be addressed immediately. See below for recommended disinfectant levels.
- It is also important to maintain and clean equipment to remove slime or biofilm, scale buildup, organic debris and corrosion.
- Filter media for pools and hot tubs should be maintained according to manufacturer instructions and operating procedures. Regularly replace water in hot tubs.
- We highly recommend that all hot tub operators have a water management plan for their hot tubs and spas. Pool operators may also create a water management plan to limit Legionella and other germs from growing and spreading.
  - The GDC has an online tool that can be found here: [www.cdc.gov/legionella/WMPtoolkit.html](http://www.cdc.gov/legionella/WMPtoolkit.html)

Disinfectant	Recommended levels for Legionella prevention	Georgia Rules, minimum required to maximum allowed range
Free Chlorine	2-4 ppm	Pool: 1 - 10 ppm* Spa/Hot tub: 3-10 ppm**
Bromine	4-6 ppm	Pool: 3-8 ppm Spa/Hot tub: 4-8 ppm**
PH	7.2 -7.8	7.2 -7.8

\*GA Rules: "Regular superchlorination is recommended." Some high use pool may need superchlorination three times a week or more as a preventative measure or when combined chlorine is over 0.4.

\*\*GA Rules: "In a spa, during hours of operation, test the water every 4 hours and record results. Maintain this range continually and shock treat at the end of daily use" for both free chlorine and bromine."