



# Facts About *Legionella* and Hot Tubs

## What is *Legionella* and how does it affect me?

*Legionella* (LEE-juh-nell-a) is a **germ that can cause a type of pneumonia called Legionnaires' disease**.

Each year, 8,000–18,000 people in the United States are hospitalized with Legionnaires' disease. Legionnaires' disease is usually treated successfully with antibiotics, but can sometimes be fatal.

Certain groups of people are more likely to become seriously ill when infected with *Legionella*:

- > Individuals who are 65 years of age or older
- > Smokers
- > People with chronic lung disease
- > Individuals with weakened immune systems

## How is *Legionella* spread in hot tubs?

*Legionella* is naturally found in water, especially warm water. Hot tubs that are not cleaned and disinfected enough can become contaminated with *Legionella*. A person **can get infected with *Legionella* when they breathe in steam or mist from a contaminated hot tub**.

*Legionella* can also be found in cooling towers, plumbing systems, and decorative pools or fountains.

*Legionella* is not spread from one person to another.

## How do I protect myself, my family, and others?

Because high water temperatures make it hard to maintain the disinfectant levels needed to kill germs

like *Legionella*, making sure that the hot tub has the right disinfectant and pH levels is essential. Here are some things you can do to determine whether a hot tub has been properly maintained:

## Three Steps for Testing Hot Tub Water

- > Purchase pool test strips at your local home improvement or pool supply store (be sure to check the expiration date).
- > Use the test strips to check hot tub water for adequate chlorine or bromine (2–6 parts per million [ppm]) and pH (7.2–7.8) levels.
- > If you find improper chlorine, bromine, and/or pH levels, tell the hot tub operator or owner immediately.

## Four Questions to ask Your Hot Tub Operator

- > What was the most recent health inspection score for the hot tub?
- > Are disinfectant and pH levels checked at least twice per day?
- > Are disinfectant and pH levels checked more often when the hot tub is being used by a lot of people?
- > Are the following maintenance activities performed regularly:
  - Removal of the slime or biofilm layer by scrubbing and cleaning?
  - Replacement of the hot tub water filter according to manufacturer's recommendations?
  - Replacement of hot tub water?

### GENERAL PUBLIC

For more information on preventing illness and injury at the pool and hot tub, visit [www.cdc.gov/healthywater/swimming/](http://www.cdc.gov/healthywater/swimming/) For further instructions on how to use pool and hot tub test strips, visit [www.cdc.gov/healthywater/swimming/pools/pool-spa-test-strip-instructions.html](http://www.cdc.gov/healthywater/swimming/pools/pool-spa-test-strip-instructions.html)

### POOL AND HOT TUB OPERATORS

For guidelines and resources on how to prevent *Legionella* and other germs from contaminating the water, visit [www.cdc.gov/healthywater/swimming/audience-aquatics-staff.html](http://www.cdc.gov/healthywater/swimming/audience-aquatics-staff.html)

