

# Hot Tub Displays and *Legionella* Risk

## Guidance for Environmental and Public Health Practitioners

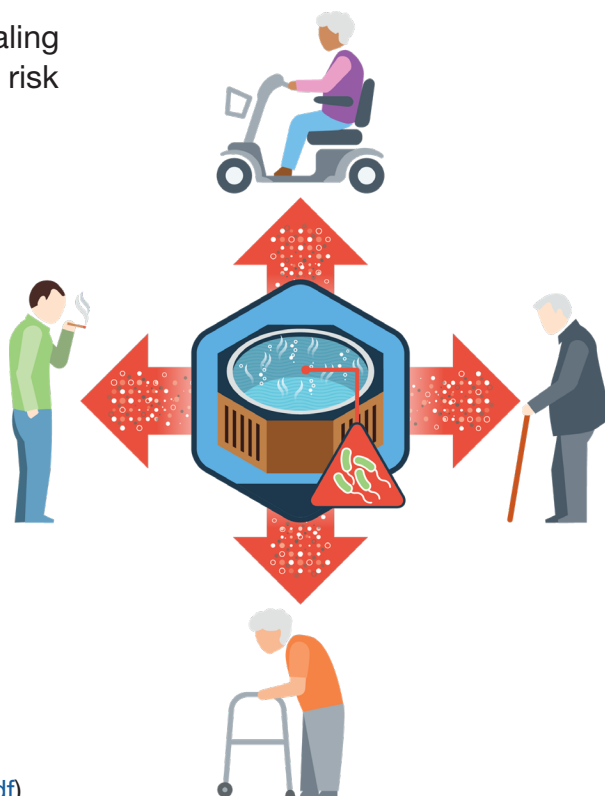
Hot tub\* displays at temporary events may pose a risk for Legionnaires' disease, a type of pneumonia caused by inhaling mist containing *Legionella* bacteria. Learn how to minimize risk for *Legionella* exposure from hot tub displays at temporary events (e.g., fairs, home and garden shows, conventions).

### Environmental and Public Health Practitioners

1. Contact organizers of temporary events where hot tubs may be on display and operating in a public setting.
2. Provide the below information about Legionnaires' disease and proper hot tub maintenance.

Investigating a suspected case of Legionnaires' disease associated with hot tubs?

1. Immediately turn off the hot tub and prevent its use to minimize exposure through aerosolization of water.
2. Collect water and swab samples for *Legionella* testing if requested by the outbreak lead investigator.
3. Disinfect the hot tub using CDC's recommended best practices (<https://www.cdc.gov/legionella/downloads/hot-tub-disinfection.pdf>).
4. Close the display and remove it from public access.



### Hot Tub Owners and Operators

Event planners and hot tub vendors should know about the risk that hot tubs pose when not maintained adequately, even if the hot tub is for display only.

1. At vendor events where a hot tub is on display, the equipment vendor, display manager, or operator should
  - a. Obtain operator and chemical handling training, if required by state or local authorities. National training courses are listed at CDC's Pool/Spa Inspector Training website (<https://www.cdc.gov/healthywater/swimming/public-health-professionals/pool-spa-inspector-training.html>).
  - b. Ensure trained vendor staff are available at the display during operational hours.
  - c. Maintain free chlorine (2–4 parts per million or ppm) or bromine (4–6 ppm) levels continuously.
  - d. Maintain the pH level of the water at 7.2–7.8.
  - e. Test pH and disinfectant levels at least twice per day.
  - f. Maintain accurate records of disinfectant and pH measurements and maintenance activities.

\*The phrase "hot tubs" in this document includes hot tubs, whirlpool spas, and hydrotherapy spas.



2. At the end of each event, hot tub vendors should (in accordance with manufacturer recommendations, where applicable)
    - a. Clean the hot tub.
    - b. Apply a biocidal shock treatment.
    - c. Drain it, removing as much water from the system as possible.
    - d. Remove filters.
    - e. Leave filters to dry.
    - f. Clean filters before reuse.
    - g. Replace filters when recommended by the manufacturer.
    - h. Protect the hot tub from external water sources (for example, condensation drip, rain, humidity, moisture).
    - i. Keep the hot tub as dry as possible between events.
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## Learn More

CDC Health Advisory 422, Hot Tub Displays and *Legionella* Risk — Guidance for Environmental and Public Health Practitioners: <https://emergency.cdc.gov/han/han00422.asp>

Facts About *Legionella* and Hot Tubs/Spas: <https://www.cdc.gov/healthywater/pdf/swimming/resources/legionella-factsheet.pdf>

Operating Public Hot Tubs: <https://www.cdc.gov/healthywater/pdf/swimming/resources/operating-public-hot-tubs-factsheet.pdf>

Disinfection of Hot Tubs That Contain *Legionella*: <http://www.cdc.gov/legionella/downloads/hot-tub-disinfection.pdf>

CDC Pool/Spa Inspector Training Website: <https://www.cdc.gov/healthywater/swimming/public-health-professionals/pool-spa-inspector-training.html>