

# DISINFECTION OF POOLS & SPAS FOR *PSEUDOMONAS AERUGINOSA*

***Pseudomonas aeruginosa* is a bacteria that can be found in hot tubs and pools.**

*Pseudomonas aeruginosa* is a bacteria known commonly to cause “hot tub rash” (*Pseudomonas dermatitis*) and “Swimmer’s Ear” (*Otitis externa*). This bacteria can be found in hot tubs and sometimes in swimming pools. *Pseudomonas* can be spread through contaminated water and surfaces or by direct contact with infected people.

***Pseudomonas aeruginosa* can cause minor to severe skin inflammation and infection.**

The affected area appears as a bumpy red rash and may cause itchy spots on the skin. Most mild cases of the skin infections resolve within two weeks without medical treatment. Severe cases may cause scarring or lead to other more serious secondary infection, especially for immunocompromised people.

**You must treat your spa or pool if it tests positive for *Pseudomonas aeruginosa*.**

If your facility’s pool or spa has had a pool water test come back positive for the presence of *Pseudomonas aeruginosa*, follow the steps on the next page.



**If you have any questions or concerns, contact the Environmental Health Division at (608) 242-6515 or [LEAdmin@publichealthmdc.com](mailto:LEAdmin@publichealthmdc.com).**

# HOW TO DISINFECT YOUR POOL OR SPA

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- 1 Close the pool/spa immediately.**
- 2 Clean and scrub all pool/spa walls, skimmers and baskets.**

This helps remove any slime layers of bacteria, called biofilms, which protect bacteria from chlorine. After cleaning, empty spas, rinse with clean water, flush to waste, and then refill spa.
- 3 If it is an outdoor pool using stabilizer (cyanuric acid/trichlor/dichlor), test to be sure the level is below 30 ppm.**

If cyanuric acid tests above 30 ppm, drain water and refill with fresh until cyanuric acid tests below 30 ppm.
- 4 Make any needed repairs.**

Thoroughly inspect pool basin, filtration, and circulation equipment to be sure all parts are in good repair and operating properly.
- 5 Use liquid chlorine to super-chlorinate the pool/spa using 20 ppm free chlorine. Keep the free chlorine at a minimum of 20 ppm for 10 hours.**
  - Run the filtration system during this procedure to ensure that the filter is also receiving the super-chlorinated water.
  - For a spa, keep the jets turned off for the first hour, then turn the jets on for the remaining 9 hours.
- 6 Backwash the filters. For spas, drain and refill at this time.**
- 7 Balance pool chemicals in this order:**
  - Total Alkalinity (60-180 ppm)
  - pH (7.2-7.8)
  - Chlorine/Bromine (depends on basin type; see below)
    - Free chlorine.** Maintain free chlorine levels at a minimum of:
      - Spa with a functioning ORP controller or does not use stabilizer: 3.0 ppm
      - Spa using stabilizer and no functioning ORP controller: 6.0 ppm
      - Swimming pool with a functioning ORP controller or does not use stabilizer: 1.0 ppm
      - Swimming pool using stabilizer and no functioning ORP controller: 2.0 ppm
    - Bromine.** For other pool basin types or for minimum bromine levels, please refer to WI DATCP Water Quality Standards: [datcp.wi.gov/Documents/WaterQualityStandards.pdf](http://datcp.wi.gov/Documents/WaterQualityStandards.pdf)
- 8 Pool/spa may reopen once chemical levels are back in approved ranges.**

If your pool or spa was tested by Public Health Madison & Dane County, contact your Public Health Sanitarian to tell them the pool has been disinfected and is reopened. A resample may be taken to confirm *Pseudomonas aeruginosa* is no longer present.