

Public Health Division  
Environmental Health Branch

## **PROTOCOL FOR CLEANING AND DISINFECTING WHIRLPOOLS CONTAMINATED WITH INFECTIOUS AGENTS, FECAL MATERIAL OR VOMIT**

The following procedure is recommended to clean and disinfect whirlpools contaminated with fecal material, vomit or infectious agents such as *Pseudomonas aeruginosa*.

**NOTE:** When cleaning and disinfecting areas contaminated with fecal material or vomitus, staff should wear the appropriate protective equipment for the job (i.e. gloves, rubber boots, aprons, face mask, etc. may be required if large amounts of chlorine are to be used).

### **Procedure**

1. Close the whirlpool.
2. Remove fecal material/ vomitus from the pool using a scooping device and dispose of stools/vomitus into a toilet. Clean and disinfect all equipment used for removing the fecal material, with a detergent solution, followed by a chlorine solution (i.e. 1 part bleach to 9 parts water).
3. Turn the heater off. Wait until the heating unit has cooled.
4. Drain the whirlpool. Ensure the whirlpool area is well ventilated.
5. Clean the whirlpool basin with a detergent solution. Thoroughly scrub all fixtures and surfaces ensuring all grease and scum have been removed. Rinse the solution to drain.
6. Fill the whirlpool to the halfway point of the skimmer mouth ensuring that the air lines of the hydro jets are flooded.
7. Superchlorinate the water with a chlorine residual of 50 ppm.
8. Turn off all equipment that functions when the filter pump is on (i.e. chemical feeders, pH controllers and other chemical controllers).

9. Turn the filter pump on and circulate for a minimum 2 ½ hours. During this period, turn the hydro jet pump on for a minimum 20 minutes.
10. Disinfect the deck area surrounding the whirlpool with 100 ppm chlorine (bleach) solution.
11. After recirculating the superchlorinated water for 2 ½ hours, backwash the filter to waste.
12. Drain the whirlpool and hydro jet lines.
13. Refill the whirlpool and immediately repeat backwashing the filter.
14. Top up the whirlpool water level and turn on any equipment that functions with the filter pump.
15. Balance the water chemistry and ensure pH is between 7.2 and 7.8, and that the disinfectant residual is between 1.0 and 5.0 ppm free available chlorine or equivalent prior to re-opening.
16. Test the water to ensure the chlorine and pH meet regulatory requirements prior to re-opening the pool. Take samples for bacterial analysis (i.e. total coliforms, fecal coliforms and *Pseudomonas aeruginosa*- **One sample should be taken for each analysis at a water depth of at least 1 foot below the water's surface**)
17. Document in your logbook all steps taken, and all analytical results obtained.

**NOTE:** As a preventative measure, it is recommended that whirlpools be emptied and cleaned a **minimum once per week**.

Procedure is based on protocol provided by Pool Safe Swimming Pool & Whirlpool Operator's Handbook (1995) from the City of Winnipeg, with input from the Medical Officer of Health, Environmental Health Officers from the Province of Manitoba and City of Winnipeg and employees from the Public Works Department of the City of Winnipeg, and recommendations from the U.S. Centers for Disease Control..

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