

Contamination Accidents in Public Pools and Spas

The transmission of serious, even life threatening, illnesses can occur when accidents in public pools or spas involve:

- ✓ fecal material;
- ✓ dead animals; and/or
- ✓ other biological contaminants, such as vomit and blood

In the event of contamination with *feces, vomitus, blood, or dead animal* OR a *drowning or near-drowning* incident, initiate the following procedures IMMEDIATELY:

1. Close the pool and instruct all users to immediately exit the water.
2. When removing contaminating material, ensure you follow these directives:
 - Avoid direct contact with the material;
 - Direct waste materials to a sanitary sewer; NOT a storm sewer, and NOT through the filtration system.
 - All equipment (vacuums, nets, leaf rakes, etc.) should be disinfected immediately after use.
3. Ensure the pH of the pool water is at 7.5 or lower.
4. Measure and maintain pool water temperature at 77°F (25°C) or higher.
5. Ensure the filtration system is operating while the pool reaches and maintains the required free-chlorine concentration during the disinfection process.
6. Disinfect the water as follows:
 - a. If the contaminating material is a formed fecal stool or vomit, maintain the free-chlorine concentration in the pool at 2 ppm for at least 25 minutes.
 - b. If contaminating material is a diarrheal stool, raise the free-chlorine concentration to 20 ppm and maintain that concentration for at least 12.75 hours.

If the pool water contains a chlorine stabilizer such as cyanuric acid, lower the pH to 6.5 and raise the free-chlorine concentration for at least 30 hours.
 - c. If the contaminating material is blood, check the free chlorine concentration at the time of the incident. If it is below the required minimum free chlorine concentration, immediately close the pool until the required minimum free-chlorine concentration is achieved.
7. Test the free-chlorine residual at multiple points to ensure the required free-chlorine concentration is achieved throughout the pool for the entire disinfection time.
8. Replace any affected cartridge filters and backwash non-cartridge filters after disinfection is complete. Ensure the effluent is discharged directly to the sanitary sewer or other approved wastewater-disposal process in accordance with State or local requirements. Replace the filter media if necessary.
9. Do not allow users back into the pool until the disinfection process is complete and the free-chlorine concentration and pH of the pool have returned to normal operating ranges in accordance with sections 65529 and 65530.

10. Immediately document each fecal, vomit, blood contamination, drowning, or near-drowning incident and maintain records in accordance with section 65523 as follows:
 - a. The date and time of the incident, the affected pool
 - b. The available free chlorine concentrations, pool temperature and pH at the time of the incident
 - c. Facts known about the circumstances and cause of the incident.
 - d. The information above (a. through d.) shall also be documented after the pool operator has completed the disinfection process and again when reopening the pool to users.
 - e. Whether the fecal stool was formed or diarrheal.
 - f. The procedures followed in responding to the contamination incident.
 - g. The number of users in the pool and the length of time between the occurrence, detection and resolution of the incident.
11. The pool operator shall maintain data and records for at least two years for inspection by Environmental Health Services.

Tips For General Upkeep of a Public Swimming Pool or Spa

- ✓ For normal pool or spa operation, always keep water balanced and maintain proper pH and disinfection levels.
- ✓ At swimming pools, the free-chlorine residual should be maintained at or above 1.0 part per million (ppm) or at or above 2.0 ppm where cyanuric acid stabilizer is being used.
- ✓ At spas, wading pools, and spray grounds, the free chlorine residual should be maintained at or above 3.0 ppm.
- ✓ The free chlorine maximum is 10.0 ppm.
- ✓ The pH must be maintained between 7.2 and 7.8 at all times the recreational facility is open for use.
- ✓ The facility must not be open unless the filtration and automatic disinfection equipment are operating and in good working condition. If proper recirculation or disinfection cannot be maintained, close the pool or spa.

Note: When working with pool chemicals, always read and follow the instructions and cautions listed on the container label.