



## What do I do about . . . poop in the pool?

### **Fecal Accident Response Recommendations for Aquatics Staff**



These recommendations are for responding to fecal accidents in chlorinated Water Recreation Facilities, as defined by WAC 246-260. According to the Centers for Disease Control (CDC), a diarrheal fecal accident is a higher risk event than a formed stool accident. With most diarrheal illnesses, the number of infectious germs found in each bowel movement decreases as the diarrhea stops and the person's bowel movements return to normal. Therefore, a formed stool is probably less of a risk than a diarrheal accident and the decontamination steps are slightly different.

#### **8 Decontamination Steps**

1. For both formed stool and diarrhea accidents, **direct everyone to leave the pool**. If you have multiple pools that use the same filter, all pools will have to be closed. Do not allow anyone to enter the contaminated pool(s) until all decontamination procedures are completed.
2. **Remove** as much of the **fecal material** as possible using a net or scoop and dispose of it in a sanitary manner. Clean and disinfect the net or scoop (e.g., after cleaning, leave the net or scoop immersed in the pool during disinfection).
3. **Spot disinfect the area of contamination** with a small quantity of available disinfectant. A solution of 5.25 percent sodium hypochlorite (household bleach) diluted 1:10 with water may be used for disinfection. Brush the walls and bottom of the pool in the contaminated area.

*NOTE: VACUUMING STOOL FROM THE POOL IS NOT RECOMMENDED*

## Decontamination Steps, continued

### What do I do about **formed stool** in the pool?

Formed stools can act as a container for germs. If the fecal matter is solid, removing the feces from the pool without breaking it apart will decrease the likelihood of pool contamination.

4. Raise the free available chlorine to a minimum of **4 ppm** and ensure the pH is between 7.2 - 7.5. This chlorine concentration was selected to kill *Giardia* in less than **30 minutes**, which is most likely the worst scenario according to the CDC.
5. **Backwash the filter** thoroughly after reaching the CT value. Where appropriate, replace the filter media.
6. Check the level of chlorine again to ensure the concentration is at least 4.0 ppm, and pH 7.2 - 7.5, for an **additional 30 minutes**. Check for the proper level of chlorine stabilizers such as chlorinated isocyanurates.
7. Swimmers may be allowed back into the pool when chlorine level has been returned to the **normal operating range** allowed by WAC 246-260-999. Check to make sure chlorine is not more than the test kit can read; use **dilution tests** (see footnote 2).

### What do I do about **diarrhea** in the pool?

Diarrheal accidents are much more likely to contain germs than formed stool ones.

4. Raise the free available chlorine concentration to **20 ppm (footnote 2)** (mg/L) and maintain the pH between 7.2 and 7.5. This chlorine and pH level should be sufficient to inactivate *Cryptosporidium* and should be maintained for at least **12.75 hours** (footnote 1).
5. Ensure that the filtration system is operating while the pool reaches and maintains the proper chlorine level during disinfection. If necessary, consult an aquatics professional to determine and identify the feasibility, practical methods, and safety considerations before attempting the hyperchlorination of any pool.
6. **Backwash the filter** thoroughly after reaching the CT value. Where appropriate, replace the filter media.
7. Swimmers may be allowed back into the pool after the required CT value has been achieved and the chlorine level has been returned to the **normal operating range** allowed by WAC 246-260-999. Check to make sure chlorine is not more than the test kit can read; use **dilution tests** (see footnote 2).

### 8. **Before reopening the pool**, record the accident in the log by recording:

- 1) date and time of the event,
- 2) note whether formed stool or diarrhea,
- 3) note the chlorine levels at the time or observation of the event,
- 4) the pH and cyanuric acid level during treatment,
- 5) the procedures followed in response to the fecal accident (including the process used to increase chlorine levels if necessary), and
- 6) the contact time used.

NOTE: For incidents resulting in vomitus, blood, or other bodily fluids on the pool deck or in the locker rooms, refer to Washington State Department of Labor and Industries for proper bloodborne pathogens precautions and procedures.

If an incident occurs resulting in minor cuts and scrapes to the bather, verify that at the time of the incident the pool's disinfection levels meet the requirements outlined in the water recreation facility guidelines.

NOTE: Improper handling of chlorine-based disinfectants could cause injury. Follow proper occupational safety and health requirements when following these recommendations.

**Footnote 1** : CT refers to concentration (C) of free available chlorine in ppm multiplied by time (T) in minutes. If pool operators want to use a different chlorine concentration or inactivation time, they need to ensure that CT values always remain the same (See CDC Web address for examples and additional recommendations: [http:// www.cdc.gov/healthyswimming/fecal\\_response.htm](http://www.cdc.gov/healthyswimming/fecal_response.htm) )

**Footnote 2** : Many conventional test kits cannot measure high free available chlorine levels. Use chlorine test strips that can measure free available chlorine in a range that includes 20 ppm (such as those used in the food industry) or make dilutions for use in a standard DPD test kit using chlorine-free water.