

# Aquatics Best Practices



When properly managed, a pool can be a great recreational and fitness-focused asset to a community. When underestimated, however, the pool is a huge exposure. These guidelines provide general insight on a wide variety of aquatic topics.

NOTE: Always follow the guidelines of your municipality or state when a disparity arises.

## Rescue Equipment

Emergencies in or around the pool are stressful. Properly using the right equipment can be the difference between a catastrophic situation and a minor incident.

### Water Rescue

During a water emergency, a lifeguard's priority must always be his or her own safety. The lifeguard should assess the surroundings before entering the water and use this equipment to keep the rescuer and victim safe:

1. **Rescue tube** – Lifeguards are required to carry a rescue tube when surveying the pool area. The rescue tube strap must be over the guard's shoulder and neck.
2. **Backboard** – An appropriately-sized backboard is crucial anytime a swimmer may have experienced a head, neck, or spinal injury. Backboards should be stored close to the pool deck and be large enough to accommodate a wide variety of victims. Head immobilizers should be stored with the backboard at all times.
3. **Shepherd's crook** – An aluminum or fiberglass reaching pole should be made available to lifeguards. Reaching out to a distressed or frantic swimmer with the crook is much safer than entering the water.
4. **Ring buoy** – A round buoy attached to a line can be used to pull a victim to safety. With lines in excess of 30 feet, a ring buoy is useful in a larger pool or in a brown water situation.

### First Aid and Other Supplies

- **Personal protective equipment (PPE)** – Personal protective equipment must be in close proximity to guards at all times. PPE should include breathing barriers, non-latex disposable gloves, protective eyewear, etc.
- **Automatic external defibrillator (AED)** – Most states now require health clubs to have at least one AED on site. The AED should be in an accessible and conspicuous location. All employees, including maintenance and part-time staff, must be trained on the use of the device.
- **Emergency oxygen** – An emergency oxygen unit can provide a victim with much purer air than a rescuer can provide manually. Increased oxygen purity better protects the brain and heart in an emergency. Oxygen units can be obtained without prescription if they contain at least a 15-minute supply of oxygen and deliver a preset flow rate of at least 6 liters per minute. Pools should strongly consider making emergency oxygen available to lifeguards.

### Emergency Notification

Lifeguards need a clear and effective medium to notify staff about potential aquatic emergencies. This is especially important for facilities with single-guard rotations. Guards should have a two-way radio, telephone, or emergency alarm button available to them when on duty. Open communication with the rest of the facility is crucial in the event of an emergency.

# Lifeguarding

## Certification

All lifeguards must have up-to-date certifications from a qualified organization such as the American Red Cross or the YMCA of USA. A designated supervisor needs to ensure all guards have active certifications. Guards with outdated certification must be pulled from the schedule immediately.

## In-Service Training

Lifeguards are required to perform dozens of complicated processes, and the only way to ensure proper technique is practice. Mandatory in-service training should be organized monthly. Guards who miss an in-service training should be required to review the material that was presented and demonstrate all required skills. These topics should be addressed throughout the year:

1. **Prevention** – Quality aquatic risk management starts with surveillance. Vigilantly supervising members can prevent drowning and slip and fall claims. A comprehensive in-service training will cover scanning techniques, blind spots, effective communication, etc.
2. **Fitness** – Lifeguarding is an extremely physical profession. Every in-service training session should have a fitness component to ensure guards are capable of performing necessary rescue techniques. A minimum of a 250-meter swim, one minute of treading, and retrieving a dive brick from the deepest part of the pool should be considered.
3. **Response** – In lifeguarding, second-guessing training can be the difference between life and death. Each in-service training session should include time for practicing and reviewing water rescue, CPR, and first-aid techniques. Improper techniques should be discussed and corrected with the group.

## Rotations

Few people outside of the aquatics profession understand how truly exhausting lifeguarding can be. Constant vigilance mixed with environmental elements makes surveillance a chore. To combat both physical and emotional fatigue, guards should be rotated at least every 30 minutes with an additional 10-minute break every hour.

## Assessments

Impromptu assessments of a lifeguard's rescue and surveillance skills are necessary to ensure preparedness in a real-life emergency. A minimum of one unannounced, on-duty emergency drill should be performed each week. Ideally, the day and time of the drill will vary from week to week so it's unexpected by the staff.

## Distractions

1. Housekeeping: An on-duty lifeguard should have one priority – swimmer surveillance. Guards must not be required to clean or tidy the pool deck, fill out paperwork, etc.
2. Electronics: Under no circumstances should a lifeguard have a cell phone, mp3 player, or other electronic device while on duty. If a facility has a stereo or music system in the pool area, lifeguards must be prevented from adjusting the volume, song, or station. Termination should be strongly considered if a lifeguard is found using an electronic device while on duty.

## Fecal Accidents (Code Brown)

Fecal accidents can compromise the health and safety of patrons very quickly. Document all fecal accidents and follow these procedures.

## Formed Stool in the Pool

1. Direct everyone to leave the pool immediately. If several pools share the same filtration system, they must all be evacuated.
2. Remove as much of the stool from the pool using a net or scoop. Do not use a vacuum to remove the stool.
3. Adjust chlorine levels to 2 ppm and ensure the water's pH is between 7.2 and 7.5 and the temperature is about 77°.
4. Maintain the chlorine concentration and pH for at least 40 minutes before reopening the pool. As always, follow state or local regulations if they are more stringent.
5. Allow swimmers back in the pool after chlorine levels have returned to normal.

## Diarrhea in the Pool

1. Direct everyone to leave the pool immediately. If several pools share the same filtration system, they must all be evacuated.
2. Remove as much of the stool from the pool using a net or scoop. Do not use a vacuum to remove the stool.
3. Adjust chlorine levels to 20 ppm and ensure the water's pH is between 7.2 and 7.5 and the temperature is about 77°.
4. Maintain the chlorine concentration and pH for at least 13 hours to achieve the CT inactivation value of 15,300.
5. Ensure that the filtration system is operating properly while the pool reaches appropriate chlorination levels.
6. Backwash the filter thoroughly after reaching the correct CT value. The effluent should be discharged directly to waste in accordance with state and local regulations.
7. Allow swimmers back in the pool after chlorine levels have returned to normal.

## Lightning

Indoor and outdoor pools should be cleared at the first sound of thunder. Because lightning can travel as far as 10 miles, employees should not wait until the first sight of lightning to clear the pool. Swimmers cannot reenter the pool until 30 minutes have elapsed from the last thunder strike.

### Indoor Pool

If large windows surround the natatorium, swimmers should immediately exit the pool area and retreat to the locker rooms. If there are no, or relatively small, windows surrounding the pool, swimmers may wait on the pool deck provided they're sufficiently clear of the pool.

### Outdoor Pool

At the first sound of thunder, swimmers must exit the pools and retreat indoors until the storm has passed. An open shelter is not considered sufficient cover.

## Swimmer Supervision

### Ratios

A minimum of one lifeguard must be on deck for every 25 swimmers.

### Swim Testing

Swim testing minors is one of the most efficient ways to minimize potential drowning incidents. Lifeguards can better prioritize their scanning efforts when inexperienced swimmers are limited to shallow water. West Bend has developed these guidelines for swim testing and supervision:

Swim testing can be difficult in single-lifeguard pools. A lifeguard, however, is not required to successfully test swimmers. A "floating" staff member can be trained to test all new swimmers. It's preferable to test all swimmers each time they come to swim, but a database tracking test results is often more efficient.

AGE	SUPERVISION	TESTING
0-7	Adult must be in pool with swimmer.	No testing necessary as adult must remain in pool.
7-10	Adult must be on the pool deck in close proximity to swimmer.	Test required if swimmer wishes to use deep end.
10-18	No adult supervision required.	Testing required if swimmer wishes to use deep end.
18+	No adult supervision required.	No testing required.

# Recreational Water Features

## Diving Boards – Surveillance

A lifeguard should be assigned specifically to the diving well any time a diving board is available to members. These lifeguards should consistently enforce rules for diving and must not scan any other parts of the pool.

### General Guidelines

- Only one diver may be on the board and in the diving well at any given time.
- Divers are to wait for the previous diver to safely reach the pool wall before entering the water.
- All divers, regardless of skill level, must only take one bounce on the board when diving.

### Swim Testing

Only swimmers who have been tested for deep-water swimming proficiency should be allowed to use the diving board. A parent waiting to catch a child is not a sufficient loss prevention strategy and this activity should be actively discouraged.

## Water Slide – Surveillance

In most circumstances, a water slide will require at least two attendants: 1) an associate at the top of the slide controlling flow; and 2) a lifeguard at the bottom ensuring a safe exit.

### General Guidelines

- Typical water slides are designed to only handle a single rider at a time.
- Riders should only go down the slide face up and feet first.

### Swim Testing

If a slide exits into the deep end of the pool, a rider must demonstrate swimming proficiency. A parent waiting to catch a child at the bottom of the slide should be discouraged.

## Virginia Graeme Baker Pool and Spa Safety Act

All pools and spas must be compliant with the Virginia Graeme Baker Pool and Spa Safety Act.

Documentation establishing compliance from a reputable pool contractor should be available upon request.

