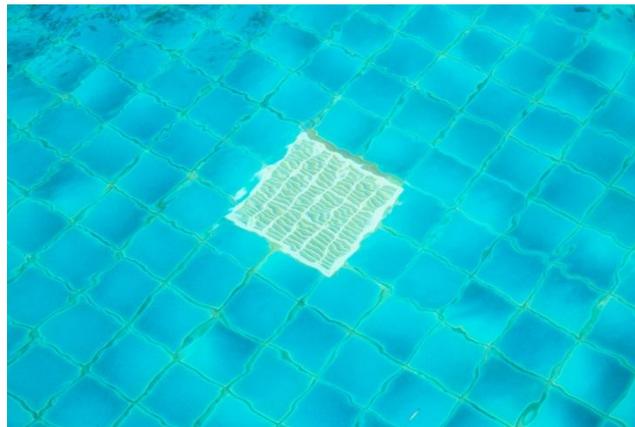


Water Quality and Health

Swimming Pool Water: When Clarity Counts

By Ralph D. Morris, MD, MPH

A new [Centers for Disease Control and Prevention \(CDC\) report](#) states that one in eight swimming pool inspections in five states in 2013 resulted in *immediate closure* due to serious health and safety violations. Is it any wonder that officials with CDC are asking swimmers to be their own pool inspectors this summer? The agency adds that only 68 percent of US local public health agencies regulate, inspect, or license public aquatic facilities. CDC's response is to turn swimmers into their own pool inspectors by providing them with an inspection checklist:



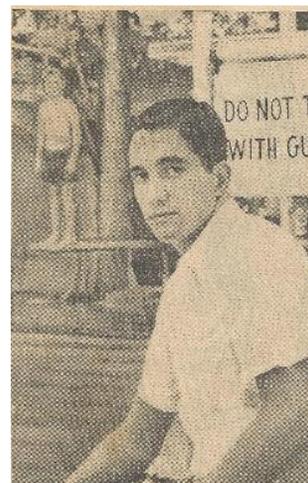
- ✓ Is the pool chemistry correct? Use a simple pool test kit to check the water's pH and free chlorine level. (Get a free pool test kit at www.healthypools.org.)
- ✓ Is the drain at the bottom of the deep end visible?
- ✓ Do the drain covers at the bottom appear to be secured and in good repair?
- ✓ Is a lifeguard on duty? If not, is safety equipment available (e.g., rescue ring or pole)?

Getting the pool chemistry right (the first item on the checklist) contributes to a healthy and comfortable swim. Confirming the next three items on the checklist can be a matter of life and death. I speak from experience, the memory of which came flooding back to me while reading the checklist.

Saved in the Deep End of the Pool

Following my high school graduation in 1966, I worked as a lifeguard at a local community pool in Texas. One late afternoon in August I was seated in a lifeguard chair near the deep end of the pool, when I glanced down into the water and saw a girl lying on the bottom. Instantly considering and dismissing the possibility of a prank, I plunged in and pulled out the unconscious 15-year old from a depth of about eight feet. After boosting the girl's limp form onto the pool deck, I heard someone yell, "There's another one down there." Back I went into the water and brought up a 12-year old girl.

Once on the pool deck, I administered mouth-to-mouth resuscitation to the younger girl. She was revived quickly, but the 15-year old



The near-drowning incident was written up in the local newspaper.

was turning blue despite the life-saving efforts of my fellow lifeguards. Finally, the older girl was revived by a fire department unit that was called. Both girls survived the ordeal, and as I indicated to a newspaper reporter who later interviewed me, at the end of the day, I was grateful that I had been trained in Red Cross senior life-saving. This near double drowning also points out the importance of learning how to swim to prevent drowning.

I am convinced that my story might have had a different ending if the pool water had been murky. Being able to see to the floor drain at the deep end of the pool is the ultimate test of pool clarity—clear vision through the greatest depth of water in the pool. Remember: If swimmers in trouble can't be seen, they can't be saved. CDC's swimmer checklist is a significant tool that can help save lives this summer.



Check Out Healthy and Safe Swimming!

Look at inspection scores

Before heading to a public pool, hot tub/spa, or another place with treated water, check to see if the latest inspection results are online or onsite.

Do your own inspection

Before getting into any treated water, do your own inspection. Check the following items if they pass your inspection.

- Water's pH and free chlorine or bromine concentration are correct.***
Proper pH and disinfectant levels help stop the spread of germs in the water. CDC recommends pH 7.2–7.8. The free chlorine concentration should be at least 1 ppm in pools and at least 3 ppm in hot tubs/spas. The free bromine concentration should be at least 3 ppm in pools and at least 4 ppm in hot tubs/spas.
- Drain at the bottom of the deep end is visible.**
Crystal-clear water allows lifeguards and other swimmers to clearly see swimmers underwater.
- Drain covers at the bottom appear to be secured and in good repair.**
- Lifeguard is on duty. If not, safety equipment, such as a rescue ring or pole, is available.**

If you find any problems during inspection, do NOT get into the water. Tell the person in charge so the problems can be fixed.

**U.S. Department of Health and Human Services
Centers for Disease Control and Prevention**

*Use test strips to test pH and free chlorine or bromine concentration. Most superstores, hardware stores, and pool-supply stores sell test strips. Follow the manufacturer's directions.

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