

Water Quality and Health



Chlorine: The Cause of Irritated Eyes of Swimmers?

By Chris Wiant, PhD

This poolside scenario will repeat itself many times this summer:



- Child emerges from swimming pool and approaches parent, rubbing his/her eyes.
- Parent takes one look at red-eyed child and exclaims, “*There must be too much chlorine in the pool. Stay out of the water for a while.*”
- Child agrees reluctantly.

The belief that swimmers’ red, irritated eyes are caused by “too much chlorine in the pool” is an urban legend. The irritation is real, but it is more likely linked to poor swimmer hygiene than to high chlorine levels, a fact that surprises many.

Peeing in the Pool Can be Bad for Swimmer Health

The red eye myth is linked to another swimming pool fallacy, sometimes espoused by parents of young swimmers. That fallacy is that peeing in the pool is acceptable because “the chlorine takes care of it [*it being the urine*].” Peeing in the pool is not unusual: one in five American adults admit to “peeing in the pool,” according to our [2009 survey](#). The truth is that peeing in the pool can be bad for swimmer health because chlorine reacts with urine (and also feces, sweat, body oils and cosmetics, for that matter) to form products that are irritants and potentially worse. While [researchers](#) continue to probe the health effects of these substances--known as disinfection byproducts--they all agree that better swimmer hygiene can help prevent their formation.

Four Hygiene Tips for Showing a Little Kindness to Your Fellow Swimmer:

1. Don’t pee in the pool! Take children on frequent bathroom breaks and make sure they know it is not alright to use the pool as a toilet.
2. Check swim diapers of young children frequently and change diapers in facility restrooms, not poolside.
3. Shower before swimming in the pool and help young children shower. Unshowered swimmers and hot tub users unwittingly contribute small amounts dirt, body oils, makeup, sweat and feces to the water, which add up in a crowded pool or spa.
4. Encourage swim team coaches to permit swimmers to take bathroom breaks as needed.

Why Add Chlorine to Pools Anyway?

Good pool chemistry plays a key role in maintaining healthy pools for swimmers. The US Centers for Disease Control and Prevention calls chlorine and pH “the first defense against germs that can make swimmers sick.” In fact, when trace levels of chlorine are maintained in swimming pool water at the right pH, chlorine is on “guard duty” against a wide range of bacteria and viruses introduced into pools by swimmers that can cause a host of problems besides conjunctivitis, including gastrointestinal upset, swimmer’s ear and irritated skin. You can check for healthy pH and chlorine levels in your pool this summer by ordering a free pool test kit. Place your order at www.healthypools.org.

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