



Public Health
Prevent. Promote. Protect.

Greene County

Chlorine Toxicity in Pools: Guidance

People go to the hospital every year due to exposure to too much chlorine in swimming pools. Chlorine toxicity is generally due to human error by putting too much chlorine in the pool, mixing chlorine with other chemicals or a system malfunction.

SYMPTOMS OF CHLORINE POISONING:

Nausea/Vomiting	Burning sensation in eyes, nose and throat	Rash or burning skin	Watery Eyes
Dizziness	Shortness of Breath	Coughing/Wheezing	

The chlorine reacts with water outside the body and on mucosal surfaces inside your body, including the water in your digestive tract. This causes hydrochloric acid and hypochlorous acid to form. Both of these can be extremely poisonous to humans. Prolonged health risks can be bladder cancer, asthma and allergy, tooth decay, and digestive ailments.

POOL WATER CHEMISTRY RECOMMENDATIONS:

<u>POOL TYPE</u>	<u>CHLORINE</u>	
	Required Minimum	Recommended Maximum
Wading Pools	1.0 ppm	5.0-7.0 ppm
Spas	2.0 ppm	5.0-7.0 ppm
Waterslide Plunge Pools	1.0 ppm	5.0-7.0 ppm
Wave Pools	1.0 ppm	5.0-7.0 ppm
All Other Pools	1.0 ppm	5.0-7.0 ppm



Chlorine levels above 10 ppm should result in closing the pool and clearing the pool of all bathers until chlorine residuals are within acceptable ranges.

TIPS TO LOWER CHLORINE LEVELS IN YOUR POOL:

- ♦ **Temporarily** suspend dispensing chlorine into the pool/spa until proper levels are achieved.
- ♦ Use the sunshine—this is a quick and easy way to dissipate chlorine in your pool. Direct sunlight for at least two hours can reduce pool chlorine levels by up to 90%.
NOTE: This will only be effective if cyanuric acid level is low or absent from the pool water.
- ♦ Dilute the pool by partially draining the pool and top it up with fresh water.
- ♦ Use a chlorine neutralizing product (e.g.—sodium thiosulfate). This is an affordable alternative to pre-formulated chlorine neutralizing products. Remember to read and follow manufacturer's instructions carefully. ****If chlorine is too high, do not adjust the pH (add acid) until the chlorine levels are back within proper range.*** Test pH again and adjust as necessary.

The absolute best preventative step is to have properly trained operators that know how to apply chemicals in the right manner and correct quantities, and are trained in how to regularly monitor water chemistry conditions throughout the