

# NEWS ARTICLE

## POOL CHEMICALS SICKEN THOUSANDS, CDC WARNS

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A new study, published in the U.S. Centers for Disease Control and Prevention's (CDC) Morbidity and Mortality Weekly Report (May 15) found that swimming pool chemicals have been linked to thousands of hospital emergency room visits. HealthDay News reported that the trend has been seen in recent years.

For the study, said HealthDay News, New York State Department of Health's Douglas C. Sackett and his team looked at 36 so-called "health events" which were reported to the department between 1983 and 2006. The team also looked at 2007 National Poison Data System information, and data from the National Electronic Injury Surveillance System for 1998 to 2007 for its research.

The team found that the vast majority, 34 cases comprising 94% involved acute respiratory illness; about one-third, 13 cases or 36 % occurred at college and school pools; 10 cases, 28% took place in membership clubs; 17% six cases happened at "housing complexes" or hotels; five cases, 14% occurred involving community pools; and two cases, or 6% took place at institutions. Most of the cases, 86%

or 31 instances the team found, involved toxic chlorine gas, said HealthDay News.

According to the Agency for Toxic Substances and Disease Registry, chlorine is a gas used in the production of thousands of products, including water disinfection, and is rapidly transformed into other chemicals, which actually disinfect the water, such as hypochlorous acid and sodium hypochlorite. Chlorine is very unstable and reacts with a variety of chemicals and water when released into the environment and is quickly broken down by sunlight. When chlorine is spilled into water, onto soil, or into the air, it forms a greenish-yellow cloud that is heavier than air and can be carried significant distances by the wind.

The study authors concluded that, "These pool chemical-associated health events can be prevented through improved design and engineering and education and training that stresses safe pool-chemical handling and storage practices and safe and preventive maintenance of equipment," quoted HealthDay News.

The Registry also explained that those with allergies, who smoke, and others with respiratory conditions might experience more intense reactions, with children likely much more sensitive and vulnerable than adults to the chemical.

The CDC wrote that annually, in the United States, swimming is the second most popular exercise with about 339 million swimming visits to what it

described as "recreational water venues," which include disinfected venues such as pools, water parks, and "interactive fountains." Of note, pool chemicals are added to these waters for the purpose of stemming pathogens. The CDC warns that such pool chemicals, when handled incorrectly and when protective equipment is not used or used incorrectly, can cause injury.

Chlorine exposure, at low levels, can cause nose, throat, and eye irritation. At higher levels, breathing rate changes, coughing takes place, and lung damage occurs, explained the Agency for Toxic Substances and Disease Registry. In some who are exposed, an inflammatory reaction can result—reactive airways dysfunction syndrome or RADS—which is a type of asthma that originates from corrosive substances.

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Chlorine-containing molecules have been implicated in the devastation to the upper atmosphere's ozone layer.

For more information regarding alternative methods for water purification please contact ClearWater Tech at 805-549-9724 or visit our Pool Applications page at <http://bit.ly/gODZN6>