

A CUP OF HEALTH WITH CDC Indoor Pools Can Cause a Serious Health Risk

Ocular and Respiratory Illness Associated with an Indoor Swimming Pool -Nebraska, 2006 Recorded: October 16, 2007; posted: October 19, 2007

[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.

**[Ana Benson]** Welcome to *A Cup of Health with CDC*, a weekly broadcast of the MMWR, the Morbidity and Mortality Weekly Report. I'm Ana Benson, filling in for your host, Matthew Reynolds.

Swimming is popular in the United States. Pool operators are responsible for ensuring the health and safety of over 360 million guests who visit recreational water venues each year, and yet these operators receive very little public health oversight. In fact, most states don't even require training or certification for public pool operators. Dr. Bryan Buss, an epidemiological investigation officer for the CDC, is here to talk about chloramine exposure, a problem in the enclosed environment of indoor swimming pools. Welcome to the show, Dr. Buss.

[Dr. Buss] Thank you.

[Ana Benson] Dr. Buss, what are chloramines and why are they such a problem?

**[Dr. Buss]** Well, chloramines are compounds that form in swimming pools when chlorine, which is commonly used as a disinfectant, reacts with sweat or urine or other human waste that accumulate in the water. And when these build up in the water they can actually leave the water and evaporate into the air above the pool, and when that happens they can be very irritating to swimmers and people that enter the environment of the pool.

**[Ana Benson]** So what symptoms will a person have if they've been exposed to high levels of chloramine?

**[Dr. Buss]** The first thing somebody would see would probably be burning eyes. I think a lot of people probably have had that sensation when they've been in pools, that their eyes burn and they think it's from chlorine. And it is actually from these chloramines and these compounds that are a problem in the pool. And in addition, they can have watery eyes, a sore throat, and in severe situations they can actually have breathing problems. And, then coughing, sneezing, shortness of breath, and in more severe symptoms that cause difficult breathing.

**[Ana Benson]** Is there a test to determine the concentration of chloramine in pool water?

**[Dr. Buss]** Well, there are tests that can be done and in Nebraska it's required that the pool operators test once a week to test for combined chlorine, which is a measure of these molecules in the water.

[Ana Benson] It sounds like chloramine exposure is relatively simple to prevent then, if pool operators maintain the quality of the pool water, required everyone to shower before entering the pool, and ensured proper ventilation of the enclosed environment. So tell me this - Is there training available for pool operators to prevent and test for excess chloramine levels?

**[Dr. Buss]** Well, in Nebraska, the state works with local health departments in a few areas to offer a course for training for pool operators to be able to detect if there is a chloramine problem in the pool, and then also give some answers on what they should do to handle such a problem. Nation wide, there are a number of organizations that do offer training. The CDC maintains a list of some of these organizations on their healthy swimming website. That address is <a href="http://www.cdc.gov/healthyswimming/courses.htm">www.cdc.gov/healthyswimming/courses.htm</a>. Or simply, you can go to the CDC site, get on the healthy swimming site, in the middle of the page there's topics. Under that it will say "Training and Education" and you can click on "Pool Operator Training" and that list will be there. Alternately, people can check with the state and the local health departments or local agencies that regulate pools in their areas and they can also provide a list of organizations and training courses that they would accept.

**[Ana Benson]** Dr. Buss, thanks for taking the time to share this information with our listeners today.

[Dr. Buss] Well, I appreciate the opportunity. Thank you.

**[Ana Benson]** That's it for this week's show. Don't forget to join us next week. Until then, be well. This is Ana Benson for *A Cup of Health with CDC*.

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