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**New Study: Keep Kids with Diarrhea Out of Pool - Swim Diapers Not Best Solution**

Research confirms that swim diapers do not prevent spread of waterborne, disease-causing germs.

A new [scientific study](#) demonstrates that swim diapers will somewhat reduce, but will not prevent, the spread of recreational water illness (RWI) of the most common cause of documented outbreaks, [Cryptosporidium](#) (Crypto). Scientists from the University of North Carolina-Charlotte (UNC-Charlotte) reported at the Swimming Pool & Spa International Conference in London, England (March 17-20, 2009) that swim diapers help by slowing down the release of disease-causing germs, but the benefits are short lived. Crypto is spread by diarrhea from infected people or mammals and is the single largest illness threat to pool users. To prevent the spread of Crypto, officials advise that people should not get in the water if they have diarrhea.

The researchers measured the amount of microsphere that released from swim diapers worn by children. The microspheres were plastic particles that have a similar size (five microns) to that of Crypto. Normal swim trunks, common disposable diapers and reusable diapers with and without vinyl diaper covers were tested. Swimming trunks without a swim diaper of any kind had the poorest performance - almost 90% of the microspheres were released into the water within one minute.

Swim diapers released at least 50% of the microspheres within one minute. Placement of a vinyl diaper cover over a disposable swim diaper slightly improved performance. In all cases, 25% or more of the microspheres were detected in the water within two minutes. "When a fecal accident contains about a billion disease-causing Crypto [oocysts](#), hundreds of millions of oocysts get into the water within minutes," explains Dr. James Amburgey. "The retention of diarrhea in swim diapers is very short-lived. Swimmers only need to ingest about 10 Crypto oocysts to become infected. What are the odds you will know the moment the child has an accident and immediately remove him/her from the pool?" The research was conducted by [James Amburgey](#), Ph.D., Michael J. Arrowood, Ph.D., and Roy R. Fielding, B.A. M.Ed. Five scientific seminars, including a presentation by Dr. Amburgey, will address Crypto at the sixth annual [World Aquatic Health™ Conference](#) in Atlanta, Georgia, October 28-30, 2009.

Crypto, a parasite that causes diarrhea and dehydration, is one of the most common causes of documented recreational water illness outbreaks. It is found in infected people's stool and cannot be seen by the naked eye. This germ is highly resistant to chlorine disinfectants used in pools. The CDC reports that Crypto outbreaks continue to increase. In recent years, outbreaks have impacted thousands. Since Crypto is resistant to chlorine, as bathers visit other pools, the outbreak spreads from facility to facility. Outbreaks have spread throughout certain regions (New York, Utah, Texas and New Mexico) and can last for months.



The UNC-Charlotte research is the first scientific evaluation of swim diaper-use to shield against Crypto outbreaks. Swim diapers are widely used around the world at public and private pools to contain solid fecal accidents. “It seems like common sense that people who have diarrhea should not go into a public pool – nor should they let their children. This study confirms that parental restraint is the key to preventing Crypto outbreaks – not swim diapers. Swimming with diarrhea is irresponsible because it places other people’s health at risk,” reinforces Thomas M. Lachocki, Ph.D., CEO of the National Swimming Pool Foundation<sup>®</sup> (NSPF<sup>®</sup>) who funded the research.

Here are seven tips for [safer swimming](#) provided by the NSPF.

Founded in 1965, NSPF is a non-profit organization dedicated to improving public health worldwide by encouraging healthier living through aquatic education and research. NSPF is the leading educator of aquatic facility operators and the chief philanthropic research sponsor in the aquatics field. For additional information, visit [www.nspf.org](http://www.nspf.org).

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