

***Cryptosporidium* and *Giardia* in Swimming Pools, Atlanta, Georgia**

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

[Dan Rutz] Hi, I'm Dan Rutz speaking today with Dr. Joan Shields, a guest researcher with the Healthy Swimming Program here at CDC. We're here to talk about an article in the June 2008 issue of Emerging Infectious Diseases reporting on the results of a test of swimming pools in the greater Atlanta, Georgia area. Joan, thanks for being with us. You tested 160 pools in metro Atlanta last year. Now why did you decide to go all over town in the summer and test these swimming pools?

[Joan Shields] Well, the germs *Cryptosporidium* and *Giardia* cause most recreational water associated outbreaks. We wanted to know how common they were in swimming pools when no outbreak was detected.

[Dan Rutz] Tell me, what is *Cryptosporidium* and *Giardia*? What does that mean?

[Joan Shields] *Cryptosporidium* and *Giardia* are parasites that infect the intestinal tract. They're spread via the fecal-oral route which, in the case of swimming, means that someone swallowed pool water that's been contaminated with feces. These parasites can also be spread when someone eats contaminated food or handles contaminated diapers but doesn't wash their hands very thoroughly. That sometimes happens in daycare centers. In the United States, *Cryptosporidium* is the leading cause of swimming pool-associated diarrheal illness. This is primarily due to the parasite's high resistance to chlorine, which is a major barrier to the spread of illness.

[Dan Rutz] Joan, tell us a bit more about the study.

[Joan Shields] Well, we took samples from 160 swimming pools in the metropolitan Atlanta area. These samples were collected at the end of the swimming season when no outbreaks had been reported.

[Dan Rutz] Now were the pool operators receptive to your visits?

[Joan Shields] Oh yes. When the CDC team visited the locations, we assured operators that we were not there to inspect the pools. Since the study was designed without a connection between a sample and a specific pool, results were anonymous, even to us. We found that the operators were very interested in what we were doing and very interested in helping to stop the spread of these parasites in their water.

[Dan Rutz] What'd you find out, Joan? What were the results?

[Joan Shields] We found that about 1 out of 12 swimming pools were positive for at least one of the parasites. While this may not seem like a lot, it does suggest that contamination happens more often than outbreaks are reported. It also suggests that people may be commonly swimming

in water contaminated with these parasites at one time or another during the summer swim season.

[Dan Rutz] Now from a public health standpoint, what's the importance of this?

[Joan Shields] Well, like I said, *Cryptosporidium* has become the leading cause of pool-associated outbreaks of diarrheal disease and these outbreaks are on the increase. This is something that can happen in any community, in any pool, and even in the best maintained pools. We hope the results will send a strong signal to the aquatics staff and to the public about the need for improved operations and swimmer hygiene.

[Dan Rutz] What should people be doing to protect themselves, their families, and the community from these parasites?

[Joan Shields] Well, remember that when you swim, you are essentially taking a communal bath. If you understand that, then you know that you don't swim when you're ill with diarrhea. This applies to both you and your children. You don't swallow pool water; it's not drinking water. You should also practice good hygiene—take a shower before swimming, take your kids on frequent bathroom breaks, and change diapers in the bathrooms, not at poolside.

[Dan Rutz] Thank you for that good advice. Our discussion with Dr. Joan Shields was prompted by an article in the June 2008 issue of Emerging Infectious Diseases. These articles, and others on emerging bacterial and viral diseases, can be read online at www.cdc.gov/eid. Again, that's www.cdc.gov/eid. More information about recreational water illnesses can be found at the CDC web site, www.cdc.gov/healthyswimming, one word. And you can submit your comments on this interview to eideditor@cdc.gov. That's eideditor—again one word—@cdc.gov. For Emerging Infectious Diseases, I'm Dan Rutz.

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