



A CUP OF HEALTH WITH CDC

Your Health, Swimming, and Waterborne Illnesses

Surveillance for Waterborne Disease and Outbreaks Associated with Recreational Water – United States, 2003-2004

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

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

Swimming is a good way to exercise and to cool down during the summer months. Each year, millions enjoy swimming in public pools, lakes, rivers, and the ocean. But the cost of cooling off can sometimes be high: a recent CDC report found that nearly three thousand Americans got sick from water in recreational areas between 2003 and 2004.

Here to discuss how to be safe when swimming in public pools, lakes, and oceans is Dr. Michael Beach, of CDC's Coordinating Center for Infectious Diseases. Dr. Beach and his colleagues recently published a report on waterborne disease outbreaks in the United States from 2003 to 2004. Welcome to the show, Dr. Beach.

[Dr. Beach] Thank you, Matthew. It's a pleasure to be here

[Matthew Reynolds] Dr. Beach, just so our listeners understand, exactly what are recreational waters?

[Dr. Beach] Well, when we track outbreaks associated with recreational water use, we include the natural waters, such as lakes, rivers, and oceans, as well as the manmade settings like swimming pools, water parks, spas, and even fountains.

[Matthew Reynolds] Dr. Beach, people – especially children – look forward to summer vacations and having fun in the water swimming, playing on the beach, boating, but I know in your research you learned about health hazards that can be connected to those activities. What kinds of illnesses can people get from swimming or playing in recreational waters?

[Dr. Beach] Well, we find a variety of illnesses associated with recreational water use. These include diarrhea; skin, ear, eye and respiratory infections; even neurologic infections; as well as infections of unhealed wounds. Basically these occur by swallowing, breathing, or having other contact with contaminated water.

[Matthew Reynolds] Tell us more about what actually causes these illnesses. How does the water become contaminated?

[Dr. Beach] Contamination occurs in multiple ways. In natural environments like lakes or beaches, we find that runoff from contaminated watersheds or sewage treatment plants can dump contaminated waste into swimming areas. In chlorinated swimming areas like swimming pools, as well as in natural environments, we see also that people contaminate the water. So someone who's ill with diarrhea may go swimming and contaminate the water, then anyone who swallows the water afterwards can become ill.

[Matthew Reynolds] Have you seen changes in the frequency or severity of outbreaks associated with recreational water activity?

[Dr. Beach] Yes, we actually have. There's been a steady increase in outbreaks of diarrheal illness since the mid 1980's. This is really due to the emergence of a chlorine-resistant parasite called *Cryptosporidium*, and this parasite actually now accounts for over half of the pool-associated outbreaks that we document, primarily because what we find is it now bypasses that major barrier that we find in swimming pools, which is chlorination.

[Matthew Reynolds] If my family is swimming in a pool, what preventive measures can we take to reduce the possibility of infection?

[Dr. Beach] First, let's keep in mind that most outbreaks are prevented by good pool maintenance. But if you want to reduce risk even further, when you visit the public pool, if you or your child are ill with diarrhea, you don't go swimming. Remember that this is communal bathing water and so you want to minimize how much water you get in your mouth and certainly how much you swallow. And finally, we need to improve hygiene, so shower before you get in the pool, change diapers in a restroom where you can wash up afterwards. Talk to your pool operator. Understand better how they're operating their pool. Are they well trained to do that? Ask about the inspection score that they got the last time from the health department. We ask about it for food in restaurants. Why don't we ask about it at the local pool? Think about taking some action yourself. You can buy test strips to measure chlorine and pH at the pool. If it's low, ask your operator why they're not there protecting your health. If you own a private pool, you need to understand how to operate that pool properly and how to handle the chemicals that you use during that operation.

[Matthew Reynolds] Since beaches and lakes don't use chlorination and filtration, what other things can someone do to protect themselves from water-related illness at the beach?

[Dr. Beach] Well, clearly one needs to follow all the precautions I just mentioned as far as taking personal action. But there are several other things to keep in mind. In a natural environment, you really want to avoid swimming at the beach or the lake and so on following heavy rains because we are washing in potentially contaminated material from the watershed. Also, if you see exposed storm drains or other drains where you see liquid coming into the swimming area, you don't want to swim around those, because you're not clear about whether that water's contaminated. And finally, I think a

key is that you should ask your state or local health department whether there's indicator testing at the beach to look at water quality. Many times this is posted on the internet so you can actually view it before you go to the beach. The key is education. But I think one thing we need to keep in perspective here is that hundreds of millions of swimming visits occur every year and most of those people aren't getting ill. We're just bringing out new information to try and help you reduce the risk even further.

[Matthew Reynolds] Where can I learn more about recreational water outbreaks and other things I can do to help keep my family healthy?

[Dr. Beach] Well, we want you to educate yourself and we think a key resource here is the CDC Healthy Swimming website which can be found at www.cdc.gov/healthyswimming as one word.

[Matthew Reynolds] Thank you for taking the time to talk to us today Dr. Beach.

[Dr. Beach] You're welcome. Thanks so much for inviting me.

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

[Announcer] To access the most accurate and relevant health information that affects you, your family and your community, please visit www.cdc.gov.