

## Resources

More information on hand hygiene, summer safety tips, pathogens and other related topics can be found online at:

Center for Hygiene and Health in Home and Community  
[www.simmons.edu/hygieneandhealth](http://www.simmons.edu/hygieneandhealth)

Center for Disease Control  
“Healthy Swimming” Brochure  
[www.cdc.gov/healthyswimming/pdf/rwibrochure.pdf](http://www.cdc.gov/healthyswimming/pdf/rwibrochure.pdf)

American Academy of Pediatrics  
[www.aap.org](http://www.aap.org)

World Health Organization  
[www.who.int/en](http://www.who.int/en)

The Leptospirosis Information Center  
[www.leptospirosis.org](http://www.leptospirosis.org)



### *Center for Hygiene & Health in Home & Community*

#### **Swimmer's Ear**

An infection of the inner and/or outer ear with the pathogen *Pseudomonas aeruginosa*, commonly found in water and soil.

#### Symptoms of Swimmer's Ear

- Itchy ear
- Red, inflamed ear
- Touching of the ear is very painful.
- Pus draining from the ear

#### Tips to prevent Swimmer's Ear:

- Dry your ears off after swimming
- If water remains that is difficult to remove, apply a couple of drops of an alcohol-based ear product into the ear. Ask your doctor or pharmacist for a product recommendation.
- Ask about your local pools' use of chlorine and pH testing protocol. Properly maintained pH and chlorine levels help to prevent the spread of infections.

Contact your doctor if you think someone in the family has Swimmer's ear, antibiotics are often used to treat the infection.

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### *Center for Hygiene & In Home & Community*

#### Recreational Water Illness: Swim Safely



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## Recreational Water Illness (RWI)

RWI are spread through contact with contaminated water in shared areas like swimming pools, hot tubs, lakes, and water parks. RWI are acquired primarily by swallowing water contaminated by such germs as *Cryptosporidium*, *Shigella*, norovirus, and *E.coli* O157:H7.



The most commonly reported RWI is diarrhea. According to the CDC, the Center for Disease Control, 62% of pool related diarrhea outbreaks are caused by the chlorine-resistant pathogen *Cryptosporidium*, spread through contaminated fecal matter.

## How RWI are Spread

When a person who has diarrhea uses a shared water area, like a pool, there is a good chance they will contaminate the water with feces. If another individual swallows the contaminated water they are at risk for infection. Only small amounts of fecal matter, containing the pathogen, need to be ingested to cause intestinal illness.

Swim Diapers and Swim Pants DO NOT prevent fecal contamination or infection causing germs from entering pool water.

## Chlorine

Chlorine is a disinfectant that can kill many germs that cause RWI when given adequate time to work and if used properly. However, *Cryptosporidium* is chlorine-resistant and can live in treated water for several days allowing diarrhea to spread.

Maintaining proper pH and chlorine levels in pools helps to prevent the spread of infections.

## Leptospirosis

Leptospirosis is a bacterial disease that can affect both animals and humans. Outbreaks are usually caused by exposure to water that has been contaminated by the urine of infected animals. Humans become infected either by swallowing the contaminated water or through contact with the bacteria through the eyes, nose, or open wounds.

Swimming in contaminated water creates the greatest human risk. Outbreaks have been associated with swimming, rafting, or wading in contaminated waterways like lakes, rivers, ponds, and un-chlorinated pools. In urban settings, infected rats urinate into water sources, like pools, creating a potential outbreak source. Small backyard kiddie paddling pools are also at risk for contamination by rats spreading leptospirosis. To reduce the risk, drain these pools every night and refill with fresh water before use.

## Common Symptoms:

- high fever
- headache
- chills
- muscle aches
- vomiting
- yellow skin and eyes, "jaundice"
- diarrhea
- Rash



If left untreated, leptospirosis can cause damage to the kidneys and liver, meningitis, respiratory problems, and even death. To reduce your risk of infection, avoid swimming in water that may potentially be contaminated with animal urine.

## The Beach

The Environmental Protection Agency (EPA) monitors the quality of beach water. When pollutants are at unsafe levels warning should be posted, the beach area might be closed to the public. Pollution in beach water is most often from boat sewage or overflows, runoff, and septic waste. Common contaminants include bacteria, worms, and viruses.

For more information on when and how your beaches are monitored, contact your local environmental or public health office.

## Swimming Tips:

- Do not swim if you have diarrhea, or have had it within 2 weeks.
- Before swimming, wash off in the shower.
- Wash children with soap and water before they swim.
- Avoid getting pool water in your mouth.
- Do not swallow pool water.
- Wash and dry your hands thoroughly after using the bathroom, changing a diaper, and before eating.
- Take children to the bathroom frequently, schedule a break every 30 - 60 minutes.
- Check diapers often to see if they need changing.
- Avoid wearing contact lenses when swimming; water pathogens can cause infections if they get between your eye and the lens.

## Look For:

- Clean and clear pool water
- Smooth pool sides; the tiles should not be sticky, discolored or slippery.
- No chemical odor; a pool that is properly disinfected and chlorinated will have very little odor.
- Ensure the pool's equipment is working. Pay special attention to the water pumps and filtration systems, if they are running you will be able to hear them.

