

## What are the four main types of RWIs?

- **Gastrointestinal illnesses**
  - Symptoms include diarrhea, vomiting, and abdominal cramps.
- **Skin, ear, and eye infections**
  - Common conditions include swimmer's ear, hot tub rash, and conjunctivitis (also known as pink eye).
- **Respiratory illnesses**
  - Common conditions include Legionnaires' disease and Pontiac fever.
- **Neurological illnesses**
  - A rare but severe condition like primary amebic meningoencephalitis (PAM).

## What are the common pathogens?

- **Bacteria:** E. coli, Pseudomonas aeruginosa, Legionella, Staphylococcus aureus.
- **Viruses:** Norovirus, hepatitis A virus, adenovirus.
- **Parasites:** Cryptosporidium, Giardia, Naegleria fowleri.
- **Fungi:** Trichophyton, Candida

## Where can I get more information?

Illinois Department of  
Public Health  
Division of Environmental Health  
Swimming Facilities Program

Call: 217-782-5830

Email:

[DPH.SwimmingFacilities@illinois.gov](mailto:DPH.SwimmingFacilities@illinois.gov)



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Swimming Facilities webpage!



# Recreational Water Illnesses

What you should know before  
spending time in swimming  
pools, hot tubs, lakes, or  
rivers.



Recreational Water Illnesses, commonly referred to as RWIs, are diseases that individuals can contract while enjoying recreational water environments, such as swimming pools, hot tubs, spas, water parks, lakes, rivers, and oceans. These illnesses are caused by a variety of pathogens, including bacteria, viruses, and parasites, which can flourish in contaminated water.

## What is the *most* common cause of RWIs? What is the *least* common?

According to the Centers for Disease Control and Prevention's (CDC) National Outbreak Reporting System (NORS), *Legionella* was the most common cause of outbreaks, accounting for 38% of the cases in 2021. *Norovirus* and *Salmonella* were the least common, each accounting for 3% of the outbreak cases, with June seeing the highest number of cases.



## What are the transmission routes?

- **Ingestion:** Swallowing contaminated water while engaging in water-related activities, such as swimming, wading, or playing in the water.
- **Direct contact:** Coming in contact with contaminated water through the skin, eyes, ears, or nose.
- **Inhalation:** Breathing in aerosolized water droplets, such as those generated by hot tubs, water features, or spray features.
- **Person-to-person transmission:** From one infected individual to others, especially in shared recreational water environments.

## Prevention tips for common RWIs

- **Cryptosporidiosis:** Avoid swallowing water while swimming. Wash hands thoroughly with soap and water after water activities, and ensure proper chlorination of swimming pools and water parks.

- **Legionellosis:** Regularly clean and disinfect hot tubs and cooling towers, maintain proper water temperature and chlorine levels, and avoid inhaling mist or vapor from contaminated water sources.
- **Shiga Toxin-Producing E. coli:** Practice good hygiene, avoid swimming in water contaminated with fecal matter, and ensure proper cooking and handling of food to prevent foodborne transmission.
- **Naegleria fowleri:** Avoid nasal exposure to warm freshwater. Use nose clips or hold your nose shut during water activities, and use properly treated water for nasal irrigation or neti pots.
- **Giardia lamblia:** Treat untreated water before consumption, practice good hygiene, avoid swallowing water from untreated sources, and wash fruits and vegetables thoroughly before eating.
- **Swimmer's Itch:** Avoid freshwater bodies known to harbor swimmer's itch. Dry off thoroughly with a towel after getting out of the water. Take a shower with soap and water, wear protective clothing, and consider using repellents on exposed skin.

