



## **PUBLIC HEALTH FACT SHEET**

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# **Recreational Water Illness**

### **What are recreational water illnesses?**

Recreational water illnesses (RWIs) are caused by germs that spread by swallowing water, breathing in mists, or having other types of contact with contaminated water in swimming pools, water parks, fountains, hot tubs, lakes, rivers, oceans, and any other type of water used for recreation.

### **What are the symptoms of RWIs?**

The most common symptom of recreational water illness is diarrhea, which is often caused by the germs *Cryptosporidium* ("Crypto"), *Giardia*, *Shigella*, norovirus and *E.coli* 0157:H7. Swallowing even a small amount of recreational water that has been contaminated with feces containing these germs can make you sick. In addition, lakes, rivers, and the ocean can be contaminated with germs from sewage spills, animal waste, and water runoff following rainfall. Some common germs can also live for long periods of time in salt water.

Other common symptoms from RWIs include skin, ear, respiratory, eye, neurologic, or wound problems. These symptoms can be caused by germs that live naturally in the environment (for example, in water and soil). In pools or hot tubs where not enough disinfectant is used these germs can multiply and cause illness when users have contact with the contaminated water or breathe in mists or aerosols.

### **Where are RWIs found?**

RWIs can be caused by the water in swimming pools, water parks, fountains, hot tubs, lakes, rivers, oceans, and any other type of water used for recreation.

#### **Hot Tubs**

The high water temperatures in most hot tubs make it hard to maintain the disinfectant levels needed to kill germs. Skin infections (like "hot tub rash") are common RWIs spread through hot tubs and spas. Respiratory illnesses can also be linked with the use of improperly maintained hot tubs.

#### **Decorative Water Fountains**

Not all decorative fountains are chlorinated or filtered. Therefore, when people, especially children in diapers play in the water, they can contaminate the water with fecal matter. Swallowing this contaminated water can then cause diarrheal illness.

#### **Oceans, Lakes, and Rivers**

Oceans, lakes, and rivers can be contaminated with germs from sewage spills, animal waste, and water runoff after a rainfall. It is important to avoid swallowing the water because natural recreational water is not disinfected.

### **Can RWIs be serious?**

Most people will recover from RWIs, however, children, pregnant women, and people with weakened immune systems (for example, people living with AIDS, individuals who have received an organ transplant, or people receiving certain types of chemotherapy) can suffer from more severe illness if infected. Those with weakened immune systems should consult their health care provider before participating in activities that place them at risk for illness.

### **How Can I Keep from Getting an RWI?**

Following these healthy swimming steps will help to protect you, your family, and other swimmers from recreational water illnesses (RWIs):

#### Three Steps for **All** Swimmers

- Don't swim when you have diarrhea. You can spread germs in the water and make other people sick.
- Don't swallow the water. Avoid getting water in your mouth. Be sure to tell children not to swallow or taste the water.
- Practice good hygiene. Shower with soap before swimming and wash your hands after using the toilet or changing diapers. Germs on your body end up in the water.

#### Three Steps for Parents of Young Children

- Take your children on bathroom breaks or check diapers often. Waiting to hear "I have to go" may mean that it's too late.
- Change diapers in a bathroom or a diaper-changing area and not at poolside. Germs can spread in and around the pool.
- Wash your child thoroughly (especially the rear end) with soap and water before swimming. Invisible amounts of fecal matter can end up in the pool.

You can help to protect yourself and your family by talking to the person operating any pool that you use. Ask the operator if they have completed a specialized training in pool operation and for the latest pool inspection score. Make sure that free chlorine and pH levels are checked at least twice a day and more often when the pool is heavily used.

**For more information, please contact  
Boston Public Health Commission  
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(617) 534-5611 or [www.bphc.org](http://www.bphc.org)**