Precautions for Safely Enjoying Recreational Activities in the Lamprey River Watershed



People enjoy recreating in areas of natural beauty and in close proximity to their homes. One concern is water pollution, especially when it can make people sick from exposure to the water. Every year in the U.S disease-causing germs from feces-containing sewage that are introduced into surface waters result in millions of illnesses in people who are exposed to the water. The germs of concern are microorganisms that include certain strains and species of bacteria, viruses and protozoa.

Surface waters, for the most part, are managed by state agencies who monitor water for fecal-borne pollution and provide warnings under conditions when water may cause illnesses. The State of New Hampshire monitors 'designated beach' areas for fecal contamination levels from Memorial Day and Labor Day and posts current NH beach advisories on line at: (https://www4.des.state.nh.us/WaterShed_BeachMaps/).

Recreational waters that are not 'designated beaches', however, are not widely monitored, thus the risk for illnesses is largely unknown. Some lake and river associations, like the Lamprey River Advisory Committee, and municipalities sponsor studies to help inform the management of recreational waters, including microbial source tracking studies where actual sources of the pollution are identified. This is an important step as pets, livestock and poultry, wild animals and birds, and humans can all pollute water yet all require different approaches for managing or eliminating them as water pollution sources.

Whether or not there are water quality assessments, it is always important to take precautions when recreating in rivers, lakes, estuaries and the ocean. People should take certain precautions to help prevent illnesses from swimming, boating or other recreational activities.

What are recreational water illnesses (RWIs)?

RWIs are illnesses that are spread by swallowing, breathing, or coming into contact with contaminated water from swimming pools, spas, lakes, rivers, estuaries or oceans. Recreational water illnesses can cause a wide variety of symptoms, including gastrointestinal (GI), skin, ear, respiratory, eye, neurologic, and wound infections. The most commonly reported RWI is diarrhea, which is the target of water quality monitoring for germs that are in sewage and feces. Diarrheal illnesses are often caused by germs such as Crypto, short for *Cryptosporidium*, *Giardia*, *Shigella*, norovirus, and *E. coli* O157:H7.

Are RWIs found in rivers, lakes, estuaries and the ocean?

Lakes, rivers, and oceans can become contaminated with germs from sewage, animal waste, water runoff after rainfall, and fecal accidents. It is important to avoid swallowing the water because natural recreational water is not disinfected. Avoid swimming after rainfalls or in areas identified as unsafe by the NH Department of Health and Human Services or the NH Department of Environmental Services. The contamination can also be from people who are already sick with diarrhea who can spread it to others when they get in recreational water. People typically have about 0.14 grams of poop (similar to a few grains of sand) on their bodies at any given time. When a person who is sick with diarrhea gets in the water, that tiny amount of poop on their body can wash into the water around them and contaminate it with germs. If someone else swallows the contaminated water, they can become infected.

How are these illnesses spread through water contact?

People can become ill with these diseases by drinking contaminated water, by breathing contaminated water, and through their ears, eyes, or a cut or wound.

Who is most likely to get sick from an RWI?

Children, pregnant women, and people with compromised immune systems can suffer from more severe illness if they become infected. People with compromised immune systems should be aware that recreational water might be contaminated with human or animal waste that contains *Cryptosporidium* (or Crypto), which can be life threatening in persons with weakened immune systems. People with a compromised immune system should consult their health care provider before participating in behaviors that place them at risk for illness.

How can RWIs be prevented?

Steps for Swimmers and Parents of Young Children

- Before you head out, check online to find out if the swim area is currently monitored, is under advisory, or has been closed for health or safety reasons. This is especially important after a heavy rain.
- If your body's ability to fight germs is already affected by other health problems or medicines, check with your healthcare provider before swimming in oceans, lakes, rivers, and other natural bodies of water.
- **Please** don't swim when you have diarrhea.
- Don't poop in the water.
- Germs in the water can get into open cuts or wounds and cause infections. If you have an open cut or wound (especially from a surgery or piercing). that is still healing, use waterproof bandages to completely cover before exposure to water.
- Please Avoid getting water in your mouth and don't swallow the water.
- Please keep sand away from your mouth and children's mouths. Sand can contain germs that can make you sick if swallowed.
- **Please** practice good hygiene. Shower with soap before swimming and wash your hands after using the bathroom or changing diapers. Germs on your body end up in the water.
- **Please** take your kids on bathroom breaks and check diapers often. Waiting to hear "I have to go" may mean it's too late.
- Please change diapers in a bathroom or a diaper-changing area, not at a beach or near the water.
- **Please** wash your child thoroughly (especially the rear end) with soap and water before swimming. Invisible amounts of fecal matter can end up in the water and make people sick.
- Wash your hands for 20 seconds before eating food, especially if you have been playing in or touching sand.

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