



Questions and Answers about Fecal Coliform

**From the Branch-Hillsdale-St. Joseph Community Health Agency
Division of Environmental Health**

What is Fecal Coliform?

Fecal coliform bacteria live in the intestinal tracts of humans and other warm-blooded animals. The presence of fecal coliform bacteria in surface waters is an indicator of pollution from fecal wastes, and the potential for human pathogens, or disease causing organisms, being present.

Do People Get Sick From Bacteria in Fecal Wastes?

The answer is YES. One particular kind of fecal coliform bacteria, *E. coli*, is an emerging cause of foodborne and waterborne illness. These bacteria produce a powerful toxin and can cause severe illness. This is of special concern because it is reported that **cattle are a reservoir for this type of *E. coli*, and five to forty percent of cattle shed the bacteria at any given time.** The disease causing affects of bacteria in fecal wastes have been documented time and again in food, water supplies, and recreation waters used for swimming.

How often do these types of contamination occur?

The Center for Disease Control estimates at least 73,000 cases of illnesses and 61 deaths per year throughout the U.S. caused by *E. coli* bacteria. In addition, other bacterial and viral pathogens are indicated by the presence of fecal coliform. Further, the threat of these pathogens appears more prevalent in more populated areas and areas with more cattle.

What is Branch-Hillsdale-St. Joseph Community Health Agency's role?

The health agency urges citizens who use river, stream and lake water for recreational purposes to be cautious and to use common sense about contact with recreational water. Additionally the Health Agency assists the DEQ in alerting the public when contaminations occur. Although the cleanliness and quality of surface waters continually improves, ***it is impossible to guarantee that any natural body of water is free of risk from disease causing-organisms or injury.***

Why can't we just test stream and river waters for pathogens?

Testing water for viruses, parasites, and bacteria that cause illnesses are difficult, time consuming, and costly. For these reasons, tests for fecal coliform bacteria and *E. coli* are the national standards used as an indicator of possible contamination from human waste. The higher the fecal coliform level, the more likely it is that sewage is present, and the greater the risk of disease causing organisms being present. On the other hand, water that tests negative for fecal coliform bacteria is not necessarily risk free.

What Precautions Should Citizens Take When Using Streams for Recreation?

Most of the organisms in rivers and lakes probably do not cause human illness or are in such low levels they will not make anyone sick, but there is no way to be sure. Most of the waterborne organisms that cause disease affect the digestive tract and therefore are acquired by ingesting contaminated water. Less commonly, skin, ear and eye infections can result from contact with surface water. Although recreational water users may inadvertently swallow water, deliberately drinking from rivers, streams or lakes is never recommended. Persons whose immune systems are compromised should be very careful to avoid swallowing water from any river, stream or lake.

For More information about Michigan's waters and environmental safety, please visit the Branch-Hillsdale-St. Joseph Community Health Agency at www.bhsj.org or the Michigan Department of Environmental Quality at www.michigan.gov/deq and chose water from the left side of their home page.