



MERCER COUNTY

HEALTH DISTRICT

Well Water Testing Frequently Asked Questions

Should I have my well tested?

Yes, the Centers for Disease Control and Prevention claims that contaminated private water wells cause about ¼ of all drinking water disease outbreaks that make people sick. The federal and state Environmental Protection Agencies (EPA) have rules and regulations to help ensure public water supplies are safe; however, those rules do not apply to private water wells. The Health District does require permits for all new private water wells. Final approval of the permitted well is contingent on a test to ensure the water is free from bacteria and nitrates; however, after the initial sample is collected and determined to be safe, it becomes the well owner's responsibility to ensure the water remains safe for consumption.

When should I have my well tested?

Wells should be tested once per year for bacteria in the water. Wells should also be tested if other wells in your area have been contaminated, or if your well has experienced a problem such as damage to the casing, flooding or any time plumbing fixtures are repaired or replaced.

My well water has a funny smell or taste. Should I worry about getting sick?

Bacteria and chemicals can get into your well water and contaminate it in different ways. Some bacteria and chemicals occur naturally. For example, heavy metals like arsenic, lead, iron, sulfur and cadmium are naturally found in rocks and soil and can sometimes seep into the groundwater. Other contaminants come from human and animal waste resulting from polluted storm water runoff or agricultural runoff that enters the ground water through a cracked well casing or improperly grouted well. In areas where the aquifer is near the ground surface, the contamination may seep directly into the groundwater.

How do I find out if my well is contaminated?

The only way to find out if your well is contaminated is to have it tested. The Mercer County Health District can collect a bacteriological water sample from private wells for a small fee, or a well owner can contact the Celina Water Treatment Plant at 419-586-2270 for bacteriological testing; or Brookside Laboratories, Inc. at 419-977-2766 for bacteriological and chemical testing.

What should I test for in my well?

Total coliform and E.coli bacteria. Coliform bacteria are microbes found in the digestive system of warm-blooded animals, in soil, on plants, and in surface water. These microbes typically do not make you sick; however, because microbes that do cause disease are hard to test for in the water, total coliforms are tested instead. If total coliform bacteria are present in a water sample, most labs will go on to test the sample for E.coli bacteria in the sample as well. E.coli bacteria are part of the fecal coliform bacteria that originate in the feces of human and warm-blooded animals. A positive test for E.coli could mean that harmful pathogens have found their way into the water system.

You may also choose to test for nitrate, which can come from animal waste or fertilizer. High levels of nitrate can cause a blood disorder illness called methemoglobinemia, also known as blue baby syndrome, which is of particular concern in infants and pregnant women.

What should I do if my well tests positive for bacteria?

If a well tests positive for bacteria in the water, it should be disinfected using chlorine bleach. The Mercer County Health District can provide instructions on how to properly disinfect a water well, or a well owner can contact a professional plumber or well driller to perform the work for them. The well water should be tested after every disinfection procedure to ensure the well is free from bacteria. If a safe water sample cannot be obtained from a water well after disinfecting the well three times, the well casing should be examined by a plumber or well driller with a down-hole camera to determine if the casing has cracks or holes in it that are allowing surface water to enter the groundwater supply. If surface water is getting into the well casing, the well will either need to be repaired or replaced to prevent contamination of the aquifer.

Other Resources:

Mercer County Health District:	419-586-3251
Celina Water Treatment Plant:	419-586-2270
Brookside Laboratories, Inc:	419-977-2766
Alloway Laboratories	419-223-1362
EPA	epa.gov/privatewells
Ohio Department of Health	odh.ohio.gov
Water Quality Interpretation Tool	https://ohiowatersheds.osu.edu/know-your-well-water

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