

PRIVATE WELL DISINFECTION INSTRUCTIONS

If your results come back Unsatisfactory (indicating bacteriological contamination for coliform bacteria, fecal coliform, or E. coli), you can follow the directions below for disinfecting the well and pipes. The water should be re-sampled about one week after “shock” chlorinating the well to make sure the problem is resolved. If the re-sample comes back positive the well should be inspected by a professional (well driller) to make sure there isn’t a bigger issue with the well. **Note:** If you have a total coliform positive sample drink the water at your own risk. While total coliforms may not affect you there may be other pathogens present that may. If you have any sort of stomach issues or intestinal distress immediately stop drinking the water. If you have an E. coli positive sample DO NOT DRINK the water there may be a high potential risk of illness if you consume the water. Boil the water for 10 minutes before drinking or using in food preparation to avoid the risk of illness.

Disinfection Procedures:

1. Use one gallon of regular (no perfumes: i.e. “lemon scent,” etc.) household bleach that contains sodium hypochlorite. **WARNING:** There are new household bleaches on the market that do not contain any sodium hypochlorite. Read labels carefully and **look for bleach that contains sodium hypochlorite as an ingredient.** Please call our office if you have any questions.
2. Because the chemistry present in a well, as well as the size (capacity) of the well itself, varies from well to well, there is not a specified amount of bleach to add to your well. You want to add enough chlorine to make your well smell like a swimming pool. Mix bleach in 5 to 10 gallons of clear water. Pour half of it directly into the well. If possible, pour the remainder in so that the sides of the casing are washed down. To fully distribute the bleached water in the well, run a garden hose down the well and let it run for 5-10 minutes. This will circulate the bleached water from the well, through the hose and back to the well again. This is also a good time to inspect the well for any spider webs, cracks in the casing, or anything else that may have caused contamination.
3. After the bleach is added, turn on all your taps in the house until the odor can be detected, then turn them off. If you have a treatment system for your water, you may need to by-pass the treatment unit so it is not damaged by the bleach. If you share the well with someone else, let them know you are disinfecting the well so they do not inadvertently do a load of laundry or take a shower with the bleach water.
4. Allow the bleach water to remain in the well and pipes overnight or for 24 hours if possible. Turn on the outside taps (to avoid overloading the septic system) until the smell of bleach can no longer be detected. Then do the same with the taps inside the house.
5. After about 1 week of use, submit another sample to the laboratory for analysis.

BACTERIA FAQs and FURTHER INFORMATION

What are coliform bacteria?

Coliform bacteria are organisms that are present in the environment and in the feces of all warm blooded animals and humans. There are three different groups of coliform bacteria (Total coliform, Fecal Coliform, and E. coli), each with a different level of risk.

Total coliform bacteria are commonly found in the environment (Soil and vegetation) and will more than likely not cause illness unless the person exposed is very young, very old, or has a suppressed immune system. However, the presence of total coliform bacteria in drinking water indicates that something is going on with the water system and disease-causing organisms (pathogens) may be present. Testing drinking water for all possible pathogens is complex, time-consuming and expensive. However, it is relatively easy and inexpensive to test for coliform bacteria.

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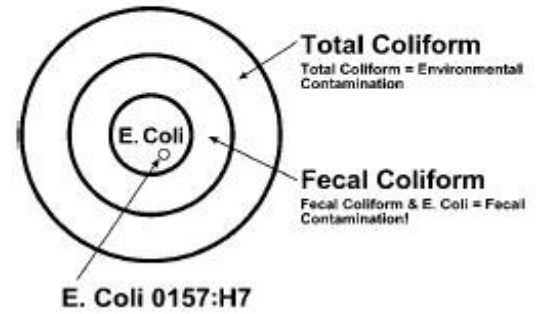


Photo taken from Washington DOH Website.

Fecal coliform bacteria are a sub-group of total coliform bacteria and appear in the feces of people and animals. While the basic potable water test does not test for fecal coliforms the presence of E. coli in the sample indicates the presence of fecal coliforms. The presence of E. coli indicates fecal contamination and a greater risk of pathogen contamination. Most E. coli are not virulent and are naturally found in our systems. The basic potable water test does not specifically test for virulent strains of E. coli, but an indication of E. coli indicates that they may be present.

What happens if coliform bacteria are found in my water?

When coliform bacteria are found, you should take steps to identify where the contamination may have entered your water system. Something as simple as a spider getting into the well can cause a total coliform positive sample or you could have a more serious issue like a crack in the casing. Sometimes a sample shows the presence of coliform because of poor sampling techniques or because a contaminated faucet (Kitchen faucet) was used – not because an actual problem exists. Once the source is identified, it can usually be resolved by making system repairs, flushing and or “shock” chlorinating the system (adding chlorine for a short period of time). See instructions on the previous page.

Well Construction Features:

A well constructed as follows will help improve water quality:

1. A tight cover with a screened vent is needed to keep contaminated surface water, debris, and insects from entering the well.
2. The well casing should rise at least 6 inches above the ground surface to protect it from flooding or surface water runoff.
3. A water tight casing with solid joints should be sealed on the outside with bentonite clay or cement to a minimum of 18 feet below the ground. Finding a copy of the driller's well report will help confirm the proper construction of your well.
4. The well should be located at least 100 feet from any source of contamination such as a septic drain field, privy, manure storage and spreading, or stream and lake.