

What are Coliform Bacteria?

“Total Coliforms” are a group of bacteria commonly found in soil, in water that is on or near the surface of the ground, and in human or animal waste. They are not normally present in deep groundwater and treated surface water. Most of the bacteria in this group are not disease causing, but their presence indicates the possibility that other disease causing organisms (pathogens), like Salmonella, Giardia, or Campylobacter, could also be present. The presence of E. coli, a fecal coliform, is strong evidence of contamination by animal or human fecal material, which can be a source of pathogenic bacteria, protozoans, or viruses. Coliforms, rather than the actual pathogens, are used to assess water quality because their detection is more reliable. Pathogens appear in smaller numbers than coliforms, so are less likely to be isolated. Drinking water found to contain coliforms is considered biologically contaminated.

Water Sample Collection Instructions

1. Collecting a water sample that is representative of the water source is critical to obtaining accurate results. Samples must be taken using an appropriate container supplied by the testing laboratory, and using proper technique to avoid bacterial contamination. Samples must be kept cool (on ice, but not frozen, is best), and they must be transported to the laboratory within 24 hours of collection.
2. Start the collection procedure with clean hands, and do not open the collection bottle until time to collect the sample.
3. Collect the sample from a frequently used inside faucet. Do not sample from a faucet that leaks water to the outside of the faucet.
4. If the faucet has an aerator (screen) remove it.
5. If tap cleanliness is in question, sanitize the faucet opening with a 10% bleach solution. (To make this solution, mix 1 ounce of ordinary household bleach and 9 ounces of regular tap water.)
6. Open tap fully and allow water to run for 3-5 minutes. The water should run for a length of time such that the sample collected is **not** of water that has been sitting in the lines between the well and the faucet.
7. Reduce the water flow to permit filling of the sample container with accuracy.
8. Open the sample container by removing the tamper proof seal and unscrewing the cap. Do not touch the inside of the container or the lid.
9. Do not rinse the container. There is a fine white powder in the sample container necessary for accurate test results.
10. Fill the sample container to the 100 ml mark. **Any sample containing less than 100 ml will not be accepted by the laboratory for testing.** Filling the bottle very slightly over the 100 ml mark is acceptable, but be sure to leave air space between the top of the sample and the lid for proper mixing of the sample prior to testing.
11. Keep the sample cool and deliver to the laboratory within 24 hours of sample collection along with a fully completed water sample submission form.