

## Coliform/E.coli Bacteria Testing

### What do the results mean?

If coliform bacteria are present in your drinking water, your risk of contracting a water-borne illness is increased. Although total coliforms can come from sources other than fecal matter, a positive total coliform sample should be considered an indication of pollution in your well. Positive E.coli results should be considered indication of fecal pollution in your well.

### What should be done if coliform bacteria are detected in a well?

When coliforms have been detected, repairs or modifications of the water system may be required. Drinking bottled water is advised until disinfection and retesting can confirm that contamination has been eliminated. A defective well is often the cause when coliform bacteria are found in well water. Water storage systems, e.g. cisterns, can also be the source of the problem.

### What exactly are total coliform bacteria and why do we test for them in our drinking water?

Total Coliform bacteria are part of a family of bacteria called, Enterobacteriaceae, or Enterics, for short. Coliform bacteria have some interesting characteristics that allow us to use them as *indicator organisms*. In this case, a coliform present sample in drinking water *indicates* that the source is, or recently has been infiltrated by surface water. We use coliforms to help us determine this, because coliform bacteria are found throughout the environment, as well as on most plant material.

When we find coliform bacteria in your drinking water sample, as stated above, it simply indicates that the source is, or recently has been compromised by surface water. We're not so concerned about the coliform bacteria themselves, but the "red flag" if you will, is that we don't know what else may have gotten in your drinking water system via the same route that the coliform bacteria entered.

*Escherichia coli (E. coli)* is the major species in the fecal coliform group. Of the five general groups of bacteria that comprise the total coliforms, only E. coli is generally not found growing and reproducing in the environment. Consequently, E. coli is considered to be the species of coliform bacteria that is the best indicator of fecal pollution and the possible presence of pathogens.

*Coliform Bacteria* = "coliform" is a general term for types of bacteria that are present in the environment but should not be present in the closed system of a well. Most coliform bacteria do not cause disease. The presence of any coliforms in drinking water suggests that there may be disease-causing agents in the water as well. Coliform can also be found in the aquatic environment, in soil and on vegetation.