Caltest ANALYTICAL LABORATORY
ENVIRONMENTAL ANALYSES

## What is Total Coliform?

Total Coliform bacteria include many types of bacteria that occur naturally throughout the environment. Presence of Coliform is common in soil and surface water and may also occur anywhere above the surface, including your skin. Substantial amounts of Coliform bacteria can also be found in waste from humans and animals. Most types of Coliform bacteria are harmless to humans, but some can cause mild illnesses and a few can lead to serious waterborne diseases.

Total Coliform and E.Coli bacteria are used as "indicator organisms" in water testing because they indicate the potential presence of disease-causing bacteria in water. The presence of Coliform bacteria in water does not guarantee that drinking the water will cause an illness. Rather, the presence indicates that a contamination pathway exists between a source of Coliform bacteria (surface water, septic system, animal waste, etc.) and the water supply. Disease-causing bacteria may use this pathway to enter the water supply.

## What is E.Coli?

Escherichia Coli (E.Coli) bacteria naturally exist in the intestines of people and animals. Most E.Coli are harmless and are an important part of a healthy human intestinal tract. However, some E.Coli are pathogenic, meaning they can cause illness, either diarrhea or illness outside of the intestinal tract. The types of E.Coli that can cause diarrhea can be transmitted through contaminated water or food, or through contact with animals or persons.

## Removing Coliform bacteria from Drinking Water sources

Problems with wells or springs that test positive (present) for Coliform bacteria can sometimes be solved with relatively simple actions. If your water supply tests positive (present), consider the following steps to solve the problem.

Confirm Test Results: Before making any costly decisions about your water supply, make sure the Total Coliform bacteria result you have received is accurate. Make sure that you carefully followed the sample collection procedure provided by the laboratory and that you used a sterile sample bottle. You may want to submit a second sample to confirm the initial result.

System Maintenance: Sometimes some simple maintenance of the water supply may eliminate the source of bacterial contamination. For example, you may want to extend a buried well casing above the ground and slope the ground away from the casing to prevent surface water from entering the well. Also, make sure the top of the casing has a tight, sanitary well cap that prevents insects and surface water from entering.

Shock Chlorination: In some cases, Coliform bacteria can be introduced to a well or spring from a one-time or temporary contamination event such as a heavy rainstorm or installation of a new submersible pump. Shock chlorination can be used to disinfect a well or spring by introducing a high concentration of chlorine to the water for a short time. Retest the water for Coliform bacteria 10 to 14 days after disinfection and again several months later. If the follow-up Coliform bacteria tests are negative (absent), it is likely that a one-time contamination event occurred and it has been successfully treated. If the Total Coliform bacteria has returned, you may need to consider a continuous disinfection treatment system.

For more information, please contact your local water treatment expert or your local health department.



1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com