How to Disinfect Your Well

Larimer County Department of
Health and Environment
498-6775

Your water has been tested using a Chromogenic Substrate test to determine if coliform bacteria are present. Water containing coliform bacteria may also contain disease causing organisms and should be considered unsafe to drink. If a sample result shows Total Coliform present, your water is unacceptable for human consumption. Often a disinfection procedure can destroy the bacteria and make the water safe to drink. Sample result of E. coli present indicates recent fecal contamination.

CAUSES OF CONTAMINATION

The presence of coliform bacteria indicates that the water system has been contaminated from an unspecified source, and my be caused by a structural defect that is allowing contamination to enter the well. Any opening in the well structure that could allow entry of surface water, rodents, or insects into the well should be corrected before following the disinfection procedure. A failing septic system may also be a source of contamination. Wells that are properly constructed can develop c growth of bacteria that can be eliminated with disinfection.

TEMPORARY WATER SUPPLIES

Until you can disinfect the well and safe test results are obtained, one of the following temporary measures can be used.

- purchase bottled water
- boil water briskly for 10 minutes
- disinfect water with regular (unscented) household bleach (5% chlorine)

Use the following procedure to chlorinate water for temporary use. Remember, all treated water should be relatively clear and stored in clean, covered containers.

1 Add specified amount of bleach (see table).
2 Cover container and shake.
3 Allow water to stand for 30 minutes.

Gallons of Water	Clear Water	Cloudy Water
1	8 drops	¼ tsp.
2	½ tsp.	2 tsp.
5	2 tsp.	1 Tbs.
100	1 oz.	1.5 oz.
1,000	1 cup	1 pint

CAUTIONS

- Do not water any plants with chlorinated water.
- Do not drain chlorinated water into a septic system, or allow to enter any streams.
- Excessive amounts of contamination may require repeating the disinfection procedure.
- Deep wells (more than 150 ft. of water) may need to be disinfected with HTH tablets, not bleach.
- Scrub dug wells and cisterns with a chlorine solution before disinfecting. Strong chlorinated mixtures can be hazardous; mix in a well ventilated area.

DISINFECTION PROCEDURE

The disinfection procedure will require that the system not be used during a 24 hour period since the high chlorine residual renders the system unsuitable for most purposes. Flushing the toilet a few times is acceptable. Plan to have bottle water available for drinking and washing. Most water well systems that contain 1,000 gallons or less can be adequately disinfected by using one gallon of regular household bleach (do NOT use scented bleach).

1 Open drilled well by loosening the four bolts on the sanitary well seal (cap) and lift the cap off. If the electric cable or pipes enter the well from the top it may be easier to remove the access plug from the top and pour the solution through the small opening using a funnel.
2 Dilute 1 (one) gallon of regular household bleach into 10 gallons of water; pour mixture into well.
3 Allow 20 minutes for solution to react in the well.
4 Rinse inside of casing with water from a hose for 15 minutes to mix solution and disinfect the well above the water table. Replace well cap and secure to avoid future contamination.
5 Flush each toilet and turn on each cold water faucet and outside hose bib; let run until the odor of chlorine reaches the faucet. This allows the chlorine solution to disinfect the well and all of the distribution lines.
6 Leave chlorine solution in the system for 12 to 24 hours. During this time the chlorine will be too strong to use for any domestic purpose.
7. After 24 hours, turn on an outside tap and allow the water to run until the odor of chlorine is no longer detected in the discharge. Do not run the pump dry.
8 Take another sample after one week.