

How to Disinfect Your Well

If the laboratory finds coliforms in your well, you should disinfect your well water system. There are two sources of the most common well disinfectant, chlorine: household bleach and calcium hypochlorite. Household bleach is 5% chlorine and is easy to use. We recommend the following procedure:

1. Pour one-half gallon of household bleach down the well.
2. Cap the well and go back to the house.
3. Turn on the kitchen and bathroom taps and run water until you detect the chlorine smell. This may take about five minutes.
4. Turn off the taps.
5. Go back to the well and pour the remaining half-gallon down the well.
6. Do not use the water for 24 hours.
7. After this period, flush the lines by washing a load of whites, or running the bath or dishwasher.
8. Retest for coliforms in four to seven days of normal water use.

If you have evidence of a high iron concentration in your well, such as stains on structures that come in contact with water, or orange, rusty stains on bathroom fixtures, do not use chlorine because chlorine will aggravate the iron problem.

A stronger source of chlorine is calcium hypochlorine. It comes in a powder or tablet form and is 68 to 70 percent chlorine. An equivalent of two tablespoons of calcium hypochlorite (powder or tablet) can be put down the well in the same manner as the bleach. Be sure to turn on the water in the house so that you bring chlorinated water into the pressure tank and through the lines of your home. Wait seven to ten days of normal water use to retest the well for coliform.

The well may require more than one application of chlorine. Once you have cleared the well and pressure tank of heavy bacterial growth, it is advisable to routinely add a cup of household bleach to the well at least once a month. This will prevent a build up of bacteria in the pressure tank. If your well has a recurring bacteria problem, you can install a chemical feeder pump that will add a continuous dose of chlorine solution to the water as it is pumped from the ground. Generally, the solution is made up of one part chlorine and four parts water. The feeder can be adjusted to maintain a chlorine residual at the kitchen tap. Use a chlorine test kit designed for swimming pools to determine the chlorine residual at the tap. Adjust the feeder so that you measure 0.5 parts per million (ppm) chlorine residual at the kitchen tap.

A new method for killing bacteria found in well water is ultraviolet (UV) disinfection. Water pumped from the well travels through a pipe that is surrounded by lamps emitting ultraviolet waves. The UV wavelength will kill bacteria in the water before it travels into your home. It requires no addition of chemicals. The UV system tends to be easily fouled by waters containing high concentration of iron, calcium or manganese. These wells will force a more rigorous maintenance of the lamps to remove precipitation of these compounds. Consult a water treatment system company for cost and application of an UV system.