

# SHIAWASSEE COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH DIVISION

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## HELP! Disinfection of Private Water Supplies

*Purpose:* New well construction may introduce Coliform Bacteria into the aquifer and the water well/distribution system. The well driller is required to disinfect the system; however, the plumbing is contaminated many times after the initial disinfection. Therefore, we are asking your help to provide a final “chlorination” prior to occupancy, especially if the house has been vacant for several weeks and/or very little water has been used.

The following steps should be helpful in cleaning up the new well and water distribution systems; this will expedite occupancy of new homes:

1. Determine the well casing volume, usually a 5" well = 1.0 gal./linear foot  
**Example:** 100' well = 100 gal.
2. Using 2-3 times the casing volume, prepare a 1000 ppm chlorine solution (2 gallons household bleach/100 gallons water) OR (1 gal. swimming pool liquid chlorine per 100 gallons water).  
**Example:** Using a 5 gal. pail, mix at least 2 gal. of household bleach or 1 gal. “swimming pool bleach” with water.
3. Pour or pump the solution into the well, washing down the casing, pitless adaptor, and drop-pipe/pump.
4. Run hose from an outside faucet or pressure tank to top of well and re-circulate for 30 minutes.
5. Reassemble the well.
6. Run the water into the distribution system. Turn on all faucets until you can smell a strong chlorine odor. (Check with chlorine test strip if available - minimum 50 ppm. chlorine)
7. Shut off the system and allow a **minimum** of four (4) hour contact time (overnight, if possible)
8. Pump the well to waste. This may require several hours. **Do not** run the chlorine solution through the septic system. Run a hose outside until the chlorine smell is gone.
9. Turn on faucets and run water until chlorine smell is gone.
10. If a new well is drilled on your property, contact the local health department at (989) 743-2390 between **8:00 and 9:30 A.M.** to arrange an appointment directly with the sanitarian for an inspection of the well. The sanitarian will collect bacteriologic, nitrate and arsenic samples and submit them to the laboratory for analysis.

**Note:** Coliform bacteria are an “indicator” of organisms found in the soil, on hands, etc. are not necessarily harmful. If coliform bacteria are present, the well may have become contaminated during building and/or drilling process. A re-chlorination may be required if coliform bacteria is identified in the water sample. It is recommended that you contact your well driller.