

How can I disinfect my water system?

New wells and wells that are bacteriologically contaminated should be disinfected according to the following steps:

- 1. Determine the amount of chlorine solution (prepared in step 2) needed to displace the entire volume of water standing in the well according to the following:**
 - o 2" casing diameter: prepare two gallons of chlorine solution per ten feet of well depth**
 - o 4" casing diameter: prepare seven gallons of chlorine solution per ten feet of well depth**
 - o 6" casing diameter: prepare 15 gallons of chlorine solution per ten feet of well depth**
 - o 8" casing diameter: prepare 26 gallons of chlorine solution per ten feet of well depth**
- 2. To prepare the chlorine solution, mix one unit volume of household laundry bleach with 100 units of water. Be sure to use pure bleach without additives, like "fresh scent". For example, mix one gallon of bleach with 100 gallons of water. Prepare enough solution to meet or exceed the total volume of your well. Mixing can be done 25 gallons at a time in a new garbage can. Note: Never use (even new) garbage cans to store drinking water.**
- 3. Remove the cap from the well and pour the entire bleach and water mixture into the well in one continuous, fast pour.**
- 4. Rinse down the sides of the well casing with a garden hose for 5-10 minutes. Make sure the hose is connected to the system being chlorinated. This procedure circulates the chlorine solution throughout the water system to insure total disinfection.**
- 5. To disinfect your plumbing system, you can turn on each of your water taps until the bleach smell is just detected and then turn them off. You should turn off the heating element in your water heater to save energy during this process. The water softener should be bypassed after allowing a low concentration of chlorine to pass through it.**
- 6. Let the chlorine solution remain in the system for at least 12 hours, but preferably 24.**

7. Pump all of the chlorine solution out of the well by attaching a garden hose and running the water to an area where the chlorine will do no damage. Remember that chlorine can kill grass and fish. Do not dump the spent chlorine solution into your private septic system and check with your municipality before dumping into any public sewer system. Pump until you can no longer detect the chlorine smell. If necessary, follow this procedure for your plumbing system by running each of the cold water taps.
8. The well should be resampled only after all traces of chlorine have been flushed from the system.

For further information on chlorination and bacteriological contamination of drinking water supplies, contact the DNR statewide office in your area.

For more information, contact: Margie Damgaard, IS Professional, Public Water Section

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