Disinfecting Your Drilled Well

There are a number of reasons why bacteria may be present in your well water. Disinfecting the water system will kill bacteria that have entered the system due to new well construction, installation or replacement of the well pump, or plumbing repairs.

Chlorinating the well will not provide a permanent solution to an ongoing contamination problem. This process only destroys existing bacteria. If bacteria are detected after chlorination, that is evidence that contamination continues to enter the system, and that some problem exists with the ground water, well, storage, or plumbing. If bacterial contamination persists after repeated disinfection of the well, repair or replacement of the well may be required. To properly disinfect your well, follow these steps:

1. Notify all users not to consume water.

2. The chart on the back of these instructions indicates the proper amount of chlorine to add to the well.

3. Mix the liquid chlorine in a container with 5 to 10 gallons of water.

4. Remove the well cap and pour the chlorine-water mixture into the well. If the well has an old style cap, pour the solution through the vent in the sanitary seal (you may need to remove a plug or bolt to access the opening). If using solid forms of chlorine, add directly to the well.

5. **Attach a garden hose to an outside hose bib, and run water into the well for 1 to 2 hours**. This will re-circulate water into the well and ensure mixing of the chlorine and water.

6. Wash the interior of the well, the cap, and the pump apparatus thoroughly with the chlorinated water. Remove the hose and replace the cap.

7. Turn off the circuit breaker to the electric hot water heater, or turn the gas control on a gas water heater to “pilot”.

8. **Run all inside and outside taps**, one at a time. Include both hot and cold taps, barn taps, showers, and taps at the bottom of the hot water heater and the pressure tank. Flush each toilet and run each washing machine and dishwasher until bleach is smelled at the fixture. Turn the water off at each tap or fixture once there is a smell of chlorine.

9. Let sit for a minimum of 12 hours, preferably 24 hours. **Do not use the water during this time.**

10. **Flush the well water from an outside faucet into a “safe” area**, such as the lawn or an open field. Do not put the chlorine solution into a septic system, because it may damage the system. Do not flush the chlorine solution into a creek or other water body where it could kill fish or other wildlife. Do not flush into a flower or vegetable garden because the solution could kill plants. It is best to flush the system intermittently, **running the water for no longer than one hour at a time**. Flush the hot water tank using a hose to the sump pump or outside.

11. Finish flushing the remainder of the system by running each faucet and fixture until no chlorine odor is detected. The small amount of chlorine left in the building’s plumbing system can safely be put down the drain.

12. Check for chlorine before re-sampling the water. If any chlorine residual remains, the bacteriological analysis will not be valid.

Quantities of Disinfectant Required for Water Well Disinfection

(COMAR 26.04.04N (5))

Chlorine is available in both liquid (household or commercial bleach) or solid (available where pool supplies are found) forms. Liquid bleach tends to "float" in a well, granular solid chlorine may dissolve before reaching the bottom of the well, and chlorine tablets may sit on the bottom of the well and slowly dissolve, making it difficult to flush the chlorine out of the system. The most effective chlorination technique uses both liquid and solid forms. Use half of the quantity of solid chlorine shown plus half of the liquid volume shown for the depth of your well.

Well Depth	4" Diameter	6" Diameter	8" Diameter
20'	A 1T	A 3T	A 4T
	B 1C	B 1C	B 2C
30'	A 2T	A 4T	A 4T
	B 1C	B 2C	B 4C
40'	A 2T	A 6T	A 8T
	B 1C	B 2C	B 1Q
60'	A 3T	A 8T	A 4oz
	B 2C	B 1Q	B 2Q
80'	A 4T	A 9T	A 5oz
	B 2C	B 1Q	B 2Q
100'	A 5T	A 4oz	A 7oz
	B 2C	B 1Q	B 2 ½Q
150'	A 8T	A 6oz	A 10oz
	B 4C	B 2Q	B 4Q

T = tablespoons, oz = ounces (by weight), C = cups, Q = quarts,
Rows A are amounts of calcium hypochlorite (Solid Chlorine, Granular or Tablets) (70%)
Rows B are amounts of liquid household bleach (5.25%)

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