

Disinfection of Individual Water Wells

A water well should be disinfected:

1. when the well is newly drilled,
2. when repairs to the well, plumbing, or pumping equipment are completed,
3. when a positive bacteria sample has been reported, or
4. after a disaster situation, for example after a flood or natural disaster, which could potentially flood the well-introducing bacteria.

Ordinary liquid laundry bleach may be used to disinfect a well. Most liquid laundry bleach contains 6 percent chlorine as sodium hypochlorite. The label on the bleach container should show the concentration. Do not use scented or splashless bleach since these will contaminate the well.

Well Disinfection Procedure

Note: if your water system has a softener or filter, check the manufacturer's recommendations prior to disinfecting your system.

1. Before disinfection, pump the well enough to completely remove sediment or other debris caused by construction or repairs.
2. Remove the cap or seal to the well. Using a funnel, pour 1/2 to 3/4 of a gallon of bleach down the interior pipe of the well, which will have wires going down to your well pump.
3. Attach a garden hose to a nearby outside hydrant/spigot and place the other end of the hose into the well opening (interior pipe) where the bleach was poured. Turn on the hydrant/spigot and circulate the water back through the well for at least 1/2 hour or until you smell bleach. This will thoroughly mix the water and bleach into a mixed solution.
4. Shut off the outside hydrant/spigot, remove the hose from the well, and reinstall the well cap or seal.
5. Proceed to all other outside hydrants/spigots and run the water until you smell bleach, then turn them off.
6. Next open each tap inside the home, both hot and cold, one at a time. When the smell of bleach is present, turn the water off. Proceed to the next tap and repeat the process until all taps have a bleach smell.

Note: It will take longer to smell the bleach coming out of the hot water side due to the hot water filling up with the new bleach solution.

7. Flush all the toilets and run hot and cold water through the homes shower heads and bathtub faucets.
8. Run any dishwashers that are present in the home, as well as run the clothes washer on a small hot and cold cycle without a load of laundry.

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9. Allow the bleached/chlorinated water to stand at least 24-48 hours, if possible, but no less than 2 hours. During this period the water can be routinely used for sanitary and hygiene purposes, but do not drink or cook with the water.
10. After the bleach has been in the system for the appropriate amount of time, open an outside hydrant/spigot and flush the system onto the ground until you can no longer smell bleach. This may take several hours so pay attention that you do not overtax your pump or run it dry. You may need to flush, pause for some time, and restart the flushing process. When discharging the chlorinated water to the ground take care not to discharge it to an adjoining property or any nearby waterways which could cause fish kills.
11. Open all the taps inside the house and flush until the bleach smell is gone. Repeat the process for any outside taps or connected taps in outbuildings.

Note: The chlorinated water has the potential to impact your septic system by killing the beneficial microorganisms. After disinfection of your well and water lines has occurred, consider reintroducing a combination of enzymes and bacteria to your septic system found in commercially approved products. See EPA's website, *How to Care for Your Septic System* <https://tinyurl.com/2bhm6f5b>.

12. Resample after one week to check for any bacteria. Please write Resample in the Sampler's Remarks section of the Chain of Custody when submitting the sample.

Further questions about the testing can be answered by the DEQ State Environmental Laboratory at (405) 702-1000 or via email at selsd@deq.ok.gov.