



## DELAWARE COUNTY HEALTH DEPARTMENT Environmental Health Department

# Well Water Disinfection Procedure

[en Español](#)

The water in a domestic well is vulnerable to contamination because it is obtained directly from the environment. In most cases this water is of good quality, but external factors can affect the water. Wells constructed in accordance with [Delaware County regulations](#) will meet specific water quality standards before they are approved for use. The well regulations are intended to protect the well from surface contaminants. The most common type of well water contamination is bacteria. Well water can be tested for the presence of coliform bacteria. The presence of coliform bacteria can be an indicator of harmful organisms. Fortunately, water containing harmful strains of bacteria can be treated so that the water is safe for human consumption.

The following chlorination process is usually effective in treating bacterial contamination in well water. The watery supply should not be used during the chlorination process - about 12-24 hours. Do not drink the water or bathe with the water until the entire disinfection procedure has been completed.

### Chlorination

1. The following items are needed to complete this process:
  - chlorine test kit from a local pool supply store
  - 2-gallon plastic bucket
  - measuring cup
  - garden hose that will reach to the top of the well
  - ½ gallon or more of household bleach (½ gallon will effectively treat up to 200 feet of water in a 6" well casing)
  - clear glass
2. Bring all of the above materials to the well. Remove the well cap.
3. Mix one cup of bleach with 2 gallons of water. Pour the mixture into the well. Flush it gently around the sides of the well casing pipe to clean the inside of the casing. Repeat this process until all of the solution has been poured into the well.

4. Turn on a garden hose and run water into the well for about 5 minutes. This will mix the bleach and run it into the water system.
5. Run some water from the hose into the clear glass. Put a drop or two of the chlorine test chemical into the glass. If the water turns yellow (orange if the chlorine concentration is very strong) the chlorine is in the water system. Turn off the hose and replace the well cap. Drain the garden hose because chlorine can damage the rubber hose. Run all outside faucets. As soon as chlorine is detected, turn faucets off. Be careful not to overtax a low-yielding well.
6. Go to the sink or faucet that is furthest away from the water supply line. Run the hot water until chlorine is detected (use the test kit). This may take some time as it is draining all the water that has been laying in the pipe. Now run the cold water until chlorine is detected. This should only take a few minutes. Turn off the faucet.
7. This process will disinfect the plumbing system in addition to the well water. Turn on all the faucets (including laundry tub, bathtub and shower) in the home one at a time, until you detect chlorine in both the hot and cold water. Once you detect chlorine in all the water, turn off all the faucets.
  - If you have an automatic icemaker, discard the ice in the bin and make a new batch of ice. Discard the new batch as well.
  - Run a complete cycle in the dishwasher with no dishes. Remove the supply hoses from the washing machine and flush out the laundry lines.
  - Run a small amount of water out of the hot water heater.
  - Flush each toilet in the house once.
8. Now the water must not be used until the chlorine has been in the system for 12 to 24 hours. Afterwards, follow the dechlorination process.

## Dechlorination

1. Run water from a garden hose onto the ground. Make sure that it will not run over the sewage absorption area (drainfield) or a neighboring absorption area, or form a puddle on a neighboring property. Avoid discharging the water into storm drains, waterways, creeks, etc. Fish and aquatic animals are very sensitive to chlorinated water and may be killed. Run the hose and sample for chlorine until the test shows that there is no chlorine in the water. If you get an indication of chlorine, continue to run the hose until you no longer see any indication of chlorine left in the water. Be careful not to overtax low-yielding wells.
2. Run a complete cycle in the dishwasher with no dishes. Flush water through the supply hoses to the washing machine as described above.
3. Flush all of the toilets once.
4. Run all the faucets in the house for about a minute, starting with the faucet farthest from the pressure tank.

The water can now be used again. Have the water tested (total coliform test) before drinking it to be sure it is safe for consumption. If coliform bacteria is still present (but much less than the previous sample) consider repeating the chlorination process. If chlorination has not significantly reduced the amount of coliform bacteria in the well water, consider installing a continuous disinfection device (ultraviolet light or chlorine injection system) or, if available,

connect to public water.

For questions about this process or other well water quality concerns, contact SEO William Conrad, III 484-609-8081.