

WELL DISINFECTION PROCEDURES

The amount of disinfectant required to disinfect a well is determined primarily by the amount of water in the well. The table below will help you calculate the volume of water in your well, and then you can calculate the amount of disinfectant required for that volume.

First, find the diameter of the well in the following table to see approximately how many gallons of water per foot the well holds. Then determine the total volume of water in the well by multiplying the gallons per foot by the number of feet of water currently in the well.

Well Diameter (Inches)	4"	6"	8"	12"	18"	24"	36"	48"	60"
Water Volume (Gallons/Foot)	0.65	1.5	2.6	6	13	24	53	94	147

For example, a drilled well that is 6 inches in diameter holds 1.5 gallons of water per foot. If the well currently holds 50 feet of water, the total water volume would be calculated as follows: 1.5 gal/ft x 50 ft = 75 gallons total water volume.

A bored well that is 36 inches in diameter and currently holds 5 feet of water would have a total water volume of 53 gal/ft x 5 ft = 265 gallons total water volume.

The amount of disinfectant required is then determined based on the disinfectant being used (either liquid bleach or hypochlorite granules):

- If using liquid bleach (5.25% chlorine), multiply the total water volume by 0.03 to calculate the required amount of bleach in cups (3 cups bleach/100 gal)
- If using hypochlorite granules (70% chlorine), multiply the total water volume by 0.02 to calculate the required amount of hypochlorite granules in ounces (1 oz. = 1 heaping tablespoon of granules) (2 oz. hypochlorite powder/100 gal)

For the example wells above:

75 gal total water volume x 0.03 = 2.25 cups of bleach, or 75 gal x 0.02 = 1.5 oz. of hypochlorite powder
265 gal total water volume x 0.03 = 8 cups of bleach, or 265 gal x 0.02 = 5.3 oz. of hypochlorite powder

The total amount of disinfectant should be mixed with 10 gallons of water, then poured on the inside lining or wall of the well. Be certain that the solution comes in contact with all parts of the well casing (the inside walls of the well). Use the entire amount of disinfectant solution.

Connect one or more clean hoses from faucets on the discharge side of the pressure tank to the top of the well casing and start the pump to recirculate the water back into the well for 15 minutes to 1 hour. Then run each faucet in the system until a chlorine smell appears. Close all faucets. Seal the top of the well and let stand for several hours, preferably overnight.

After the water has had time to stand, and if there is no shortage of water, operate the pump and discharge water from all faucets until all chlorine odor disappears. Remember that fixtures discharging to septic tank systems should be throttled to a low flow to avoid overloading the disposal system.

If there is a shortage of water in the well, water should not be wasted, but run sparingly through all faucets. The chlorine odor will eventually dissipate. Do not drink the water if a strong chlorine smell or taste is present.

If you have questions, please contact the Environmental Health Division of the Fulton County Health Department at (309) 647-1134, Extension 230.