

DISINFECTION OF PRIVATE DRINKING WATER WELLS

There are two (2) methods of disinfection.



WHICH BLEACH TO USE?

The only recommended bleach is **regular, unscented Clorox**. The label should say 6% NaClO or higher (up to 8%).

Do not use “splashless” varieties. These varieties have thickening agents and a lower concentration of NaClO; they should not be used for shocking water wells or for water treatment.

DISINFECTION METHOD #1: IF WELL LOCATION IS KNOWN and ACCESSIBLE

1. In a clean bucket, make a diluted bleach solution of **two (2) quarts bleach** with **five (5) gallons of water**. Remove the cap on the well casing and dump the solution down the well. **WARNING:** Full strength bleach is corrosive to the well casing and *should not* be dumped directly into wells. Protective gloves should be worn when handling bleach and bleach solutions.
2. One at a time, turn on each faucet/tap and allow the water to run until you smell bleach then turn the tap off. Repeat the procedure for each tap, both hot and cold water in kitchens, bathrooms, and all water outlets. If you don't smell chlorine at the first tap after 5 minutes, repeat Step # 1.

Run all water outlets including bathtub faucets, showers, outside taps, utility sinks, flush toilets, etc. to ensure that all pipes in the system receive chlorinated water.

3. Allow the chlorinated water to remain in the pipes a **minimum of six (6) hours** or overnight.
4. Flush the majority of chlorine from the well by running water at a **slow rate** through an outside garden hose for 30 to 60 minutes then shut the water off for an equal amount of time allowing the well to rest and recover the water level. You may need to repeat this step multiple times until the smell of bleach has weakened. Any residual bleach left will disappear after a few days depending on water use.



RUN CHLORINATED WATER OUT OF THE WELL SLOWLY. If you rush the process by running the taps at a high rate you risk running the well dry or stirring up sediment in the well, both of which will counteract your disinfection efforts.



5. Use DPD total chlorine test tablets to determine if chlorine is still present in your water before sampling or scheduling a sample collection appointment. Place one tablet in a clear cup then add 1-2 ounce(s) of your water.
 - ▶ If a **pink color appears**, chlorine is still present in the water. Repeat Step #4.
 - ▶ If **water remains clear**, there is no chlorine present. You may sample your water or call to schedule a sampling appointment.

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DISINFECTION METHOD #2:

IF WELL LOCATION IS UNKNOWN or NOT ACCESSIBLE and THE WATER PUMP IS AVAILABLE

**This method disinfects the plumbing only and will not disinfect the well.*

1. Shut off the electricity to the pump.
2. Open any water taps to draw off all water pressure.
3. On the water pump itself, open the priming port, pressure port, or tee and pour **up to one (1) cup of bleach** directly into the pump.
4. Close up the pump. Turn on the electric switch and allow the pump to build pressure.
5. Turn on each water outlet and allow the water to run until you smell bleach in the water. If you cannot smell bleach after a reasonable amount of time, repeat Step #3.
6. Follow Steps #3 through #5, listed above under Method #1.

DISINFECTION NOTES

- ◆ Heavily chlorinated water is harmful to humans and animals but minor amounts of chlorine as in public water supplies or in private wells after the majority has been run-off following disinfection is not harmful.
- ◆ Private water wells should be disinfected whenever plumbing work has been done, if the well has been run dry, and following flood conditions.
- ◆ It's not uncommon for an initial water sample to fail. However, a thorough disinfection frequently leads to passing follow-up samples.

SANITARY SEAL, WATERTIGHT WELL CAPS (examples are pictured below)

- ◆ The watertight seals are more secure than the older style caps and provide better protection for your well water.
- ◆ A sanitary seal well cap is required by the Sanitary Code of Chautauqua County Health District when a property is transferred. Examples are shown below.
- ◆ If a conduit does not enter the well cap then a plug must be used to close the conduit opening.



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