

DISINFECTION OF WELLS

The chlorination procedure is as follows:

- 1) Remove the cap from the top of the well casing.
- 2) Mix the *liquid swimming pool chlorine (sodium hypo chlorite) with 5 gallons of water and pour the mixture directly into the well casing making sure chlorine makes contact with the entire inside perimeter of the casing itself.

For Drilled Wells - Two (2) gallons of chlorine is recommended.

For Point Wells - One (1) gallon of chlorine for each point is recommended.

- 3) Mix 2 quarts of white vinegar in a 5 gallon bucket of water. Pour the mixture into the well. NOTE: Vinegar allows for proper adjustment of pH levels which in turn allows chlorine to be more effective.
- 4) Attach a clean garden hose to an outside spigot and place the hose into the well casing. Turn the hose on until a strong chlorine odor from the hose is detected. This may take several minutes. Wash down the interior of the well casing and drop pipe with the hose, in a swirling motion from top to bottom. Remove the hose.
- 5) Replace and properly secure well cap.
- 6) Allow chlorine to remain in the well for a minimum of 5 hours without using any water.
- 7) Pump chlorine through the entire system. This is done by turning on all the inside and outside taps one by one until the smell of chlorine begins to appear (This may take several minutes.) This step will insure that highly chlorinated water will come into contact with all the plumbing associated with the well.
- 8) Turn off all taps and allow chlorine to remain in the system for an additional 8 hours without using any water (a couple of toilet flushes is ok). Longer contact time is more effective. If feasible, allow the water to remain in the system for 24-48 hours. Do not drink the water while chlorine is in the system. Contact with heavily chlorinated water may cause skin, eye and nose irritation.
- 9) Flush the system by running water to waste through a garden hose placed away from the septic system and away from desired vegetation (gardens, landscaping, etc.) Do not run this water into the septic system! When the majority of the chlorine is out of the well (which may take several hours) turn on each house tap to remove chlorine from household plumbing.
- 10) You must call the health department (419) 213-4100 #4 to obtain a water sample and perform a bacteriological test. We do not automatically come out once the well is installed and chlorinated. This test is for coliform bacteria and E. coli ONLY and therefore all chlorine must be removed prior to sampling. The water must not be used for drinking purposes until an acceptable bacteriological sample is obtained. Other water testing (nitrates, hardness, iron, etc.) must be performed by a private lab or another agency.

Samples are normally taken Monday through Wednesday with a written report to follow in approximately 7-10 days. Because chlorine residual can affect the test, we must wait a minimum of 48 hours after the chlorination process to take a water sample. If chlorine is detected at the time of the sample, it will not be analyzed.

- 11) If bacterial contamination persists, re-chlorinate using a stronger concentration of chlorine/bleach and/or a longer contact time.

If you have any additional questions on chlorination procedure or water testing, please contact our department, Monday through Friday between 8:00 A.M. and 4:00 P.M. at 419-213-4100 #4.

SEE BACK FOR MORE INFORMATION

Please read prior to chlorination

- The water supply should be chlorinated after ANY work is performed on a well including new well installation, alteration of an existing well, pump replacement, etc. Water should not be consumed until a safe water sample obtained.
- Two (2) complete chlorination's are recommended prior to the initial sampling of your water (new wells or well alterations).
- Liquid swimming pool chlorine is recommended since it is more highly concentrated than an over the counter bleach (ex. Clorox) and it mixes readily in water. The pellet or table form of Chlorine may be recommended in addition to the liquid in some cases when wells are very deep (>200 ft) or very high producing (>15 gpm). If pellets are used, please allow them to dissolve in a 5 gallon bucket of water prior to use.
- A chlorine odor may remain for a period of time (perhaps several days) depending on the amount of water usage and ventilation within the home.
- All toilets should be flushed at least once. Check for chlorine smell in the reservoir for the toilet.
- Unfinished plumbing that has been capped should be flushed with chlorine. If necessary provide a temporary faucet. Plumbing that is not longer in used should be removed from the distribution system. Contact a licensed plumber to perform the work and obtain a plumbing permit from Lucas County Building Regulations.
- All spigots and household appliances connected to the water supply (i.e. dishwasher, washing machine, ice maker, etc.) must be disinfected. Chlorinated water must run through them until a chlorine odor is present.
- If a fire suppression system (indoor sprinkler) is present, partly drain the storage tank until the pump turns on and begins drawing the chlorinated water into the system and the tank.
- Make sure you do not forget yard hydrants, outdoor spigots, the spigot on the pressure tank of the well, and any other spigot, faucet, or sink that may not get much use. Chlorinated water must be run through all of these until a chlorine odor is present.
- Contact your plumber or water system supplier to determine whether or not your water treatment (softener, R-O [Reverse-Osmosis] Unit, chlorinator, etc.) if applicable, must be bypassed during the chlorination procedure. The water softener may be bypassed through out the entire chlorination process. Do not reopen the bypass valve until the distribution system has been flushed and a satisfactory water sample is obtained.
- The resin bed of the water softener may be chlorinated separately at lower concentrations. Please contact your water system supplier for instructions.