

# WELL DISINFECTION INSTRUCTIONS

Well disinfection, also called shock chlorination, can eliminate or reduce harmful microorganisms (bacteria, viruses, etc.) as well as harmless bacteria, which can cause unpleasant taste and odors. However, disinfection will NOT correct all water problems caused by other contamination (i.e., nitrates, heavy metals, fuels, pesticides, toxins, or other substances).

## When should you disinfect?

- After flooding, especially if the water goes over the top of the well cap.
- Any time the well cap has been opened.
- Any time the well is damaged (i.e., accidents, tornado, earthquake, etc.).
- After a period of stagnation from water not being used (long vacations, seasonal closures, etc.).
- After positive bacteria test (i.e., total coliform, E. coli, and/or fecal coliform).

**A licensed plumber or water well driller can also be hired to perform well disinfection.**

## Materials

- Water well log to determine well depth. If you don't have a copy of your water well log, check Indiana Department of Natural Resource's Water Well Record website:  
<https://www.in.gov/dnr/water/ground-water-wells/water-well-record-database/>
- Personal protective equipment (PPE) such as gloves, goggles, rubber boots, apron, etc.
- Sodium Hypochlorite (NaOCl) also known as chlorine, household, or laundry bleach (5.25% Chlorine)  
**OR** Hypochlorite Granules (70% Chlorine)
  - NO SCENTED PRODUCTS, NO GELS, and NO POOL CHEMICALS.
  - New and unopened /sealed products ensure that the product is unaltered.
  - Never pour bleach directly down your well.
- Chlorine test strips are *not necessary* but provide a visual indication that chlorine is present.
- Clean plastic tarp or trash bag to set well components on during disinfection.
- Clean bucket to mix chlorine solution.
- Clean funnel to pour the chlorine solution into the well.
- Garden hose.
- Extra water for drinking and cooking while the system is being disinfected.



**Be safe when handling chlorine!** Should you decide to shock chlorinate your well yourself, take precautionary measures against electrical, chemical, and respiratory hazards by wearing proper PPE, turning power off to pump when advised, following manufacturer's instructions, and working in well-ventilated areas.

**If you have questions or concerns, contact MCPHD's Water Quality Department at 317-221-2266.**

**For more detailed chlorination instructions, see MCPHD website at**

**<https://marionhealth.org/private-well-program/>**



## Disinfection Steps

1. Bypass the water softener, if applicable. Disinfection of water softeners or hot water heaters may follow a different process and may be damaged by excessive amounts of chlorine. Follow manufacturer instructions for bypassing and disinfecting.
2. Turn off electrical power to the pump. If the breaker box has a “lockout” hasp to prevent someone from accidentally turning on the water pump circuit breaker, use it.
3. With electrical power off, remove the well cap and lift the wires/wire nuts and set them aside on a clean surface (i.e., clean unused trash bag or plastic tarp). While power is off, examine for chaffed wire insulation or missing wire nuts and repair as necessary.
4. Add 3 cups (24 oz) of Chlorine Household or Laundry Bleach (5.25% Chlorine) or 2 oz (2 tbsp) of **pre-dissolved** hypochlorite granules to a clean bucket with about 3 gallons of water. This is generally sufficient to disinfect a 4-in diameter-well 100 ft deep or less. For wells greater than 100 ft, increase the amount of bleach proportionately.
5. Pour the mixture into the well with a clean funnel.
6. Place garden hose into well casing and turn on pump power. Recirculate for about 30 minutes (wells with excessive mineral build up may need up to 2 hours) from the time you smell chlorine from the garden hose.
7. While water is circulating (Step 6), turn on each faucet one at a time until you smell bleach (or use chlorine test papers), then turn off. Do this for each faucet, including hot water taps, toilets, shower and bath fixtures, any outside spigots, dishwasher (empty cycle), washing machine (empty cycle), and ice machines. Faucet aerators may need to be removed to prevent clogging from grit.
8. Turn the pump circuit breaker off and return the well cap or put the cover back in place. Power can be turned on when finished putting the well cap is in place. Let system sit **24 to 48 hours** with chlorine in the water lines. Make sure no one in your home uses the water for any purpose (i.e., showers, bathing, drinking, cooking, etc.) during the 12–24-hour treatment. Try to limit toilet flushing during this time.
9. To flush out the system, connect a garden hose to an outside spigot and run the water until you stop smelling bleach in the water coming from the hose. Failure to flush chlorine from all areas and plumbing fixtures could result in corrosion to your water system. Run the water to an open outdoor area, where it won't matter if plants are harmed. **Do not** run the water into your septic system. If water smells of chlorine, repeat flushing. Once the chlorine smell is gone, run the water through the remaining plumbing lines, as you did in Step 7.
10. Re-test the water **7 to 10 days** after the last trace of chlorine odor has dissipated. If coliform bacteria are still present, disinfect the well again using the same amount of chlorine and let sit for a longer time (**48 to 72 hours**). If tests continue to show the presence of bacteria, contact MCPHD or a licensed well driller for assistance.

