

## 6 Replace the Well cap

Place the well cap securely onto the well casing after the recirculation period.

## 7 Distribution of Chlorinated Water

To disperse the chlorinated water throughout the distribution system, open each tap within the home, one at a time, starting closest to the pressure tank, and run water until a strong chlorine smell is present. Close the tap. Do not forget to flush each hot water tap.

**Allow the chlorine to remain in the water supply for 4 to 12 hours, preferably overnight.**

\*Contact time is an important part of the chlorine treatment process. The longer the chlorine is allowed to remain in the water supply system, the better the chance that the chlorine will contact and kill microorganisms that may be present. Water use during the contact time should be minimized to assure that a chlorine residual remains in the well.

## 8 Pump Chlorinated Water to Waste

**Do not discharge chlorinated water into the septic system.**

Using a garden hose, direct the water to an area where it will not harm plants, lakes, or streams. Allow the water to flow until the water in the distribution system is free of chlorine. After the chlorine smell can no longer be detected, it is recommended that flushing be continued for an additional 1 to 2 hours, since there may still be traces of chlorine in the well.

## 9 Reactivate Treatment Systems

When all traces of chlorine are gone, place the disinfected water treatment units back online.

## 10 Re-Sample the Well Water

Obtain a bacteriological sample and submit it to a laboratory for analysis. Closely follow the sample collection instructions provided.

**IF THE DISINFECTION PROCEDURES FAIL TO PRODUCE A SAFE BACTERIOLOGICAL SAMPLE, IT IS SUGGESTED THAT A REGISTERED WELL DRILLER BE CONTACTED TO CHLORINATE YOUR WELL.**

Note: Water from a water supply system that has been treated with chlorine can be turbid due to the effect of the chlorine on minerals in the water (such as iron) and biofilms that may be present. Extended pumping normally clears the water of turbidity.

## Contact Us

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# How to Disinfect a Water Supply System



Coliform bacteria are used as an indicator for harmful organisms that may be present in your drinking water.

You are advised not to drink Coliform positive water, but obtain drinking water from a safe source until your well has tested safe.

Re-sampling is recommended and disinfection of the water supply may be necessary before a safe result can be obtained.

# WHEN TO DISINFECT YOUR WELL:

Well disinfection can eliminate or reduce many kinds of harmful bacteria and viruses as well as non-harmful bacteria which can cause unpleasant taste and odors. However, disinfection will not correct water problems caused by chemical contamination from nitrate, fuels, pesticides, or other substances. Well disinfection should be performed under the following circumstances:

- When coliform bacteria are present in the water
- After flooding of the well
- After plumbing installation
- After pump or other plumbing repairs
- When a change in taste or an odor problem occurs
- As part of routine maintenance
- During startup of seasonal residential systems



# PROCEDURES FOR SIMPLE WELL CHLORINATION:

Simple chlorination is used to disinfect the upper portion of a well casing, the well pump, water service line, pressure tank, and the building distribution system of a typical 4- to 6- inch diameter home water system with a submersible pump. Disinfection of flowing wells or wells in pits should not be attempted by well owners.

## 1 Pre-Disinfection Safeguards

Review the Water Well Record for information on the well.

Turn off the pump switch which is usually located near the pressure tank, open a faucet, and allow the water to run until the water pressure is at a minimum.

Bypass cartridge filters, softeners, RO systems, and anything else that might be vulnerable to high chlorine concentrations to prevent damage to the device.

If the water system includes a filter device, consider replacing the filter at this time.

Since softeners themselves may be a source of contamination, it is good to disinfect the softener at the same time that the well is being disinfected. To disinfect the softener, follow manufacturer's recommendations.

## 2 Remove the Well Cap

Turn off power to the pump and remove the well cap. Lift the wires/wire nuts and pull them to the side of the well casing.

## 3 Mix a Chlorine Solution

In a clean 5 gallon bucket, prepare a chlorine solution. Use the table below to determine concentration of 5.25 - 6 percent unscented liquid household chlorine bleach. Add an additional 2 cups of bleach (to assure sufficient chlorine for disinfection of the pressure tank, water heater, and distribution system) and mix with 5 gallons of water.

Chlorine Solution Table	
Well Diameter	Amount of bleach per 25 feet of well depth
4 inch	1 cup
5 inch	1.5 cups
6 inch	2 cups

**Example:** A 4-inch diameter well 150 feet deep needs 6 cups bleach. A total of 8 cups of bleach will be mixed with the 5 gallons of water.

## 4 Add Chlorine to the Well

Slowly pour the mixture into the well.

## 5 Circulation of Chlorinated Water

Circulate water from the pump, through the drop pipe, service line, pressure tank, distribution piping, and hose back into the top of the well.

1. Turn on the pump switch.
2. Connect the garden hose to an outside water faucet.
3. Open the faucet and allow the water to run until a strong chlorine odor is detected.
4. Use the garden hose to recirculate the chlorinated water back into the top of the well for at least 30 minutes.