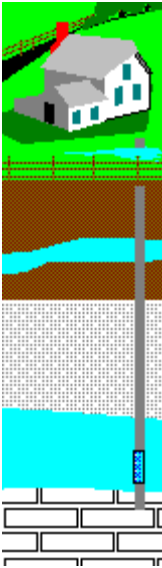


What Should I Do if My Well is Flooded?



Why should I be concerned? Surface waters are susceptible to many sources of contamination. This is particularly true during a flood event where sewage runoff and overflow from lakes, rivers, and streams may be carrying bacteria such as E. coli and cholera, protozoa such as Giardia, and viruses such as hepatitis. If surface water enters your well, it may contaminate the water that you rely on for drinking, cooking, washing, and bathing.

What should I do to protect my family from contaminated well water? If there is a flooding event in your area, your county health department will issue a precautionary boil water notice through your local television, radio, and newspapers.

In general, if flood waters have reached your well, or if you notice any change in the appearance or taste of your water, or even if you are unsure about the impact of flooding on the water quality in your area, you should boil all of the water you use for drinking, making beverages, cooking, brushing your teeth, washing dishes, and washing areas of the skin that have been cut or injured (Be sure to cool the water first.) The water should be brought to a rolling boil for at least one minute. Bottled water may also be used for all of these purposes.

Is my water safe to drink after the flooding subsides? No -- If your well has been flooded, you must first disinfect it and contact your county health department for information on how to sample your water and where to bring the sample for bacteriological testing.

How do I disinfect my well? It is important to disinfect both the well and all of the household plumbing to assure that all infectious agents are killed. If you have water treatment devices, replace all membranes, cartridges, and filters. Water softeners and water heaters should also receive special attention to ensure that they do not reintroduce bacteria into your plumbing system.

Both amount of chlorine and the length of time you allow it to remain in your system are important considerations. Common unscented laundry bleach can be used effectively as a chlorine disinfectant. Please [see chart](#) for recommended amounts of chlorine bleach to use and follow these steps:

- If the water is discolored, run the water until it is clear.
- Turn off, then drain your hot water heater -- chlorine bleach is not as effective in water above 105 degrees.
- Water softeners, sand filters, and iron removal filters should be backwashed with chlorinated water. Remove and replace charcoal filters after the chlorination process is completed.
- To avoid adding further contamination to the well during the disinfection procedure, first clean up the work area around the top of the well. Remove grease, mineral deposits, and other encrustation from accessible parts of well interior and flush these surfaces with 1/2 cup of laundry bleach in 5 gallons of water.

- Turn off the well pump. Remove the cap on a two-inch well, or the well plug on the rubber seal of a four-inch well. There are many types of well caps and plugs -- if you have questions you should contact a licensed well driller. If you have a submersible pump, you may also want to contact a licensed well driller for advice on disinfection procedures.
- Consult [the chart](#) and pour in the recommended amount of bleach solution. (Your county health department may issue additional guidance for your area.) Try to coat the sides of the casing as you pour. If you get chlorine on the pump or wiring, flush it thoroughly with fresh water to prevent later corrosion.
- Re-cap or plug the well opening and wait 30 minutes.
- Turn on and, if needed, reprime the pump. Open all of the faucets on the system one by one. Allow the water to run until there is a noticeable smell of chlorine. You may also want to flush the toilets. If you have outside faucets, you may want to direct the water away from sensitive plants. If you cannot detect a chlorine odor, re-chlorinate the system.
- Turn off all of the faucets and allow the chlorine to remain in the system for at least eight-hours, preferably 10-12 hours.
- Again open all of the faucets and run the water until there is no chlorine smell.

Is it safe now? The only way to verify that the water is safe to drink is to have it tested. Although chlorine bleach is effective against microorganisms, it will not remove chemical contamination that may have gotten into your well. Contact your county health department for sampling instructions to get your water tested..

Guide to Chlorine Bleach for Disinfection

This chart is a guide for the amount of chlorine bleach to use for well and plumbing system disinfection. Do not use scented bleach or bleaches containing other additives.

	Well Diameter in Inches				
Well Depth in Feet	2	4	5	6	8
20	8 oz	8 oz	8 oz	16 oz	32 oz
30	8 oz	8 oz	16 oz	16 oz	32 oz
40	8 oz	8 oz	16 oz	16 oz	32 oz
50	8 oz	16 oz	16 oz	32 oz	64 oz
80	8 oz	16 oz	32 oz	32 oz	64 oz
100	16 oz	24 oz	32 oz	48 oz	80 oz
150	16 oz	32 oz	48 oz	64 oz	96 oz
200	16 oz	48 oz	48 oz	64 oz	96 oz

Conversions	8 oz = 1 cup	16 oz = 1 pint
24 oz = 3 cups	32 oz = 1 quart	48 oz = 1 1/2 quarts
64 oz = 2 quarts	80 oz = 2 1/2 quarts	96 oz = 3 quarts

The bleach should be diluted with 10 parts water. For example, dilute 1 cup of bleach with 10 cups of water before pouring it into your well.