



Risks to Water Supply Due to Storm/Flood

UPDATED: 02/2014

Hurricanes can contaminate the public water supply, especially if a tidal surge or flooding comes with it. Drinking contaminated water may cause illness. People cannot assume that the water in the hurricane-affected area is safe to drink.

In the area hit by a hurricane or tropical storm, water treatment plants may not be operating. Even if they are, storm damage and flooding can taint water lines. Listen for public announcements about the safety of the public water supply.

If your well has been flooded, it needs to be tested and disinfected after the storm passes and the floodwaters leave. Questions about testing should be directed to your local or state health department.

Water for Drinking and Cooking

Safe drinking water includes bottled, boiled or treated water. Here are some general rules concerning water for drinking and cooking. Remember:

- Do not use contaminated water to wash dishes, brush your teeth, wash and prepare food or make ice.
- If you use bottled water, know where it came from. Otherwise, water should be boiled or treated before use. Drink only bottled, boiled or treated water until your supply is tested and safe.
- Boiling water kills harmful bacteria and parasites. Bringing water to a rolling boil for 1 minute will kill infectious germs.
- Water may be treated with chlorine by mixing eight drops (1/8 teaspoon; about the size of a dime) of unscented, ordinary household chlorine bleach (4-6 percent active ingredients) per gallon of water. Mix the solution thoroughly, and let stand for approximately 30 minutes. Use a container that has a cap or cover for disinfecting and storing water to be used for drinking. This will prevent contamination. However, this treatment will not kill parasites that may have entered a flooded well. Iodine or other disinfection tablets available at sporting goods, drug or discount stores may also be used.

Containers for water should be rinsed with a bleach solution before reusing them (one tablespoon bleach per gallon of water). Use water storage tanks and other types of containers with caution. For example, fire truck storage tanks as well as previously used cans or bottles may be contaminated with bacteria or chemicals. Do not rely on untested water treatment devices for decontaminating water.

How to Disinfect Well

It is important to disinfect both the drinking water well and plumbing with 4-6 percent chlorine, non-scented household bleach to ensure that all infectious agents are killed. If you have water treatment devices, remove all membranes, cartridges and filters and replace them after the chlorination process is completed.

The amount of chlorine and the length of time you allow it to remain in your system are equally important. Common unscented laundry bleach can be used effectively as a chlorine disinfectant. Follow these steps for the recommended usage amount of chlorine bleach:

- If the water is discolored before chlorination, run the water until it is clear for up to 10 minutes.

- Turn off and then drain your hot water heater—chlorine is not effective in water above 105 degrees.
- Remove and replace charcoal filters after the chlorination process is completed.
- To avoid adding contamination to the well during disinfection, first clean the work area around the top of the well. Remove grease and mineral deposits from reachable parts of the well head and flush the outside surfaces with 1/2 cup of laundry bleach in 5 gallons of water.
- Turn off the well pump. Remove the cap or the well plug on the rubber seal. 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.
- Try to coat the sides of the casing as you pour in 1 gallon of unscented household bleach (4-6 percent active ingredients). If you get chlorine on the pump or wiring, flush it thoroughly with fresh water to prevent later decay. Your county health department may issue additional guidance for your area.
- Re-cap or plug the well opening and wait 30 minutes.
- Turn on and, if needed, re-prime the pump. Open all 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 well.
- Turn off all the faucets and allow the chlorine to remain in the plumbing system for at least 8 hours.
- Backwash water softeners, sand filters and iron removal filters with chlorinated water.
- Again open all the faucets and run the water until there is no chlorine smell—for up to 15 minutes.

Is it Safe Now?

The only way to know 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. There may be a cost for the testing.

For more information, please contact your county health department or visit www.floridahealth.gov or www.floridadisaster.org.

Photos of this process are on the U.S. Environmental Protection Agency website at: <http://www.epa.gov/safewater/privatewells/whatdo.html>.