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## Risks to Water Supply Due to Storms



### Contact:

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**Viera, FL** — Heavy rainfall, especially if accompanied by a tidal surge or flooding, can contaminate the water supply. Drinking contaminated water may cause illness. Residents and visitors should not assume that a water supply in a storm-affected area is safe to drink.

A storm can also affect water from public water treatment plants. Even if the treatment plants are operating, storm damage and flooding can contaminate water lines. Watch for public announcements regarding the safety of the water supply.

If your private well has been flooded, it may need to be disinfected and tested after floodwaters recede. Questions about testing should be directed to the Florida Department of Health (DOH) in Brevard County (DOH-Brevard)

### Water for Drinking and Cooking

Safe sources of drinking water include commercially bottled, disinfected or both boiled and cooled water. Here are some general rules on using water for drinking and cooking:

- 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.
- Drink only commercially- bottled, both boiled and cooled, or disinfected water until your supply is tested and deemed safe.
  - Water should be disinfected or both boiled and cooled before use.
- Use commercially bottled water for mixing baby formula.

To be safe, you can disinfect tap water using the procedures below. Do not rely on unverified methods for decontaminating water. If water is cloudy, let it settle and filter it through a clean cloth, paper towel or coffee filter. This will help the disinfection process. If you have any extra water, put it in containers that were disinfected (see information below water disinfection).

The preferred method to disinfect water is to Boil Water.

- Bring water to a rolling boil for at least one minute to kill harmful bacteria and parasites.
- To improve the flat taste of boiled water, add one pinch of salt (depending upon health conditions) to each quart or liter of water, or pour the water from one clean container to another clean container several times.

If boiling is not possible, use Household Bleach.

- Add eight drops of plain unscented household bleach (four to six percent strength), which is about 1/8 teaspoon or a dime sized puddle, per gallon of water.
  - Do not use color safe bleach or bleaches with added cleaners.

- If a higher strength bleach is used (up to 8.25 percent strength), only add six drops of bleach.
- Mix the solution and let it stand for 30 minutes.
- If the water is cloudy after 30 minutes, repeat the procedure one time.
- If the chlorine taste is too strong, pour the water from one clean container to another and let stand for a few hours before use.

It is also possible to use other Disinfection Methods.

*Note: Follow the instructions on the product label as each product may have a different strength.*

- Five drops of Iodine (two percent tincture) can be added to each quart or liter of water to be disinfected.

*Note: Per the [CDC](#), water that has been disinfected with iodine is NOT recommended for pregnant women, people with thyroid problems, those with known hypersensitivity to iodine or for continuous use for more than a few weeks at a time.*

- If the water is cloudy or colored add 10 drops of iodine.
- Stir and let the water stand for at least 30 minutes before use.
- Water disinfection tablets (available at sporting goods departments or stores) that contain chlorine, iodine, chlorine dioxide or other disinfecting agents may also be used.

Containers for water should be rinsed with a bleach solution of one tablespoon of bleach per gallon of water before reusing them.

## How do I disinfect my well?

It is important to disinfect both well and plumbing water with unscented household bleach to ensure that all infectious agents (germs) are killed. If you have water treatment devices, remove all membranes, cartridges and filters. Replace with new ones after the disinfection process is complete.

The Department recommends the following steps to disinfect a contaminated well:

- **If the water is discolored** before adding the bleach, run the water until it is clear for up to 10 minutes.
  - If after a while the water does not clear up, wait until you have clear water before proceeding, as this means the well may still be affected by the flooding.
- **Turn off the pump.**
- **Turn off and then drain** your hot water heater, as bleach is not effective in water above 105 degrees.
- **Remove** all membranes, cartridges, and filters.
- **Replace the items removed** with new ones after the disinfecting process is completed.
- **To avoid adding contamination** to the well during disinfection, clean the work area around the top of the well.
  - Remove grease and mineral deposits from accessible parts of the well head.
  - Flush the outside surfaces with half a cup of unscented household bleach in five gallons of water.
- **Disinfect the 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, contact a licensed well driller.
  - If you have a jet pump, you may also want to contact a licensed well driller for advice on disinfection procedures.

- **Consult the bleach chart below** and pour the recommended amount of regular unscented bleach (four to 8.25 percent strength) solution into the well.
  - Try to coat the sides of the casing as you pour.
  - If you get bleach on the pump or wiring, flush it thoroughly with fresh water to prevent later corrosion.

Well Depth in Feet	Well Diameter in Inches			
	2 inches	4 inches	5 inches	6 inches
20 feet	1 cup	1 cup	1 cup	1 cup
30 feet	1 cup	1 cup	1 cup	2 cups
40 feet	1 cup	1 cup	2 cups	2 cups
50 feet	1 cup	2 cups	2 cups	3 cups
80 feet	1 cup	2 cups	1 quart	1 quart
100 feet	1 cup	3 cups	1 quart	1.5 quarts
150 feet	2 cups	1 quart	2 quarts	2.5 quarts
200 feet	3 cups	1.5 quarts	2.5 quarts	3 quarts

**Conversions** 8 oz. = 1 cup; 16 oz. = 1 pint or 2 cups; 24 oz. = 3 cups; 32 oz. = 1 quart; 48 oz = 1.5 quarts; 64 oz. = 2 quarts; 80 oz. = 2.5 quarts; 96 oz. = 3 quarts.

- **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 at a time.
  - Start with the faucets outside, close to the well first, to limit the amount of water entering the septic system, especially if the drain field area is flooded.
  - Allow the water to run until there is a noticeable smell of bleach.
  - 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 bleach odor, repeat the disinfecting process.
- **Turn off all faucets** and allow the bleach to remain in the system for at least eight hours.
- **Backwash water softeners**, sand filters and iron removal filters with bleach water.
- **Again, open all faucets** and run the water until there is no bleach smell—for up to 15 minutes.
  - Again, start with the ones outside, nearest to the well first.
  - This will limit the amount of both bleach and water from entering and possibly affecting the septic tank and drain field.

### Is the water safe now?

The only way to verify that water is safe to drink is to have it tested by a certified laboratory. Although chlorine bleach is effective against most microorganisms, it will not remove chemical contamination that may have gotten into your well. If chemical contamination occurs, use commercially produced bottled water until a safe water source is obtained. Contact DOH-Brevard at 321-633-2100 or [www.brevardeh.com](http://www.brevardeh.com) or [brevard.ehs@flhealth.gov](mailto:brevard.ehs@flhealth.gov) for sampling instructions to get your water tested.

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