

## Disinfecting Wells Following an Emergency

If you suspect that your well may be contaminated, contact your local or state health department for specific advice. If you do not get your water from a well, see Keep Food and Water Safe for information on disinfecting your water.

**IMPORTANT:** Fuel and other chemical releases and spills are common during flood events. If your water smells like fuel or has a chemical odor, contact your local or state health department to request a chemical analysis of your water before using it. Until you know the water is safe, use bottled water or some other safe supply of water.

### Safety Precautions

You will need to clear hazards away from wells before cleaning and disinfecting wells after floods and other natural disasters. The following precautions will help you do that safely:

1. Before beginning any action, carefully inspect the area around the well for electrical and physical hazards. Those may include broken power lines on the ground or in the water; sharp metal, glass, or wood debris; open holes; and slippery conditions.
2. Wear thick rubber-soled shoes or boots to protect against electrical shock.
3. Turn off all power to the well area before clearing debris. Inspect all electrical connections for breaks in insulation and for moisture. Turn power back on only if all connections appear unbroken and dry with no opportunity for shock.
4. Do not turn on any electrical equipment if there is a persistent smell of fuel such as gasoline coming from the well head. Allow the well to vent. If the smell persists, contact your local or state health department. Do not continue with disinfection of the well until the contamination in the well has been removed.
5. Before beginning work on the well, clear debris away from it to avoid inadvertently moving debris into the well.
6. When clearing debris from large-diameter wells (36 inches [approximately 90 centimeters (cm)] or greater), use grappling hooks, nets, and long-handled scoops to remove debris. Do not enter the well pit. Gases and vapors can build up in well pits, creating a hazardous environment.

Follow these additional precautions as you prepare to disinfect the wells:

- Chlorine solutions can cause chemical burns. Use rubber gloves, protective eye wear, and waterproof aprons or rain gear when working with chlorine solutions.
- When mixing and handling chlorine solutions, work in well ventilated areas and avoid breathing vapors. When working in closed spaces, use electrical fans to provide fresh air.
- Warn users not to drink or bathe in water until all the well disinfection steps have been completed and the well has been thoroughly flushed.

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### **Disinfection Issues and Concerns**

Bored and dug wells can be difficult to disinfect because of how they are constructed. Many are shallow and have no lining or casing, which can allow contaminants to enter the well hole from upper soil levels. If contamination problems continue, consider upgrading the existing well or drilling a new well.

Water softeners may be damaged by the disinfection process because of the large amounts of chlorine used. Follow your manufacturers' instructions for appropriate methods to disinfect your softener unit. You may need to bypass the unit until the disinfection process is complete.

### **Related Resources**

- World Health Organization (WHO) South-East Asia Earthquake and Tsunami List of Guidelines for Health Emergencies: Water  
([http://w3.who.sea.org/EN/Section23/Section1108/Section1835\\_8188.htm](http://w3.who.sea.org/EN/Section23/Section1108/Section1835_8188.htm))
- WHO South-East Asia Earthquake and Tsunami Web Site: Household Water Treatment and Safe Storage Following Emergencies and Disasters  
([http://www.who.int/household\\_water/resources/emergencies.pdf](http://www.who.int/household_water/resources/emergencies.pdf))
- WHO: The International Network to Promote Household Water Treatment and Safe Storage  
([http://www.who.int/household\\_water/en/](http://www.who.int/household_water/en/))
- U.S. Environmental Protection Agency Advice on Flooded Wells  
(<http://www.epa.gov/safewater/privatewells/whatdo.html>)

For more information, visit [www.bt.cdc.gov/disasters](http://www.bt.cdc.gov/disasters),  
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

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