



INDIANA STATE DEPARTMENT OF HEALTH
Environmental Public Health Division
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DIRECTIONS FOR DISINFECTING WELLS

The following instructions are for the disinfection or treatment of private drinking water wells that have been subjected to flood, storm water, or other possible sources of contamination. **If the well casing is submerged in flood water, DO NOT USE THE WATER.** Water from submerged wells can not be safely sanitized. Once the flood waters recede, small quantities may be disinfected until the well can be properly chlorinated (see Directions for Treating Small Quantities of Drinking Water available on our website at www.in.gov/isdh/20401.htm).

After flood waters recede, or the cause of contamination is eliminated, wells can be disinfected with chlorine. Before chlorinating, pump water from the well until it is clear of sediments. A convenient form to use is sold commercially in grocery or other stores as liquid chlorine laundry bleach. Most of these products contain 5.25 percent solution or more of sodium hypochlorite when fresh, and is equivalent to 5 percent available chlorine.

1. Determine the Amount and Add the Chlorine Disinfecting Solution

The quantity of chlorine solution needed to disinfect a well is based upon 100 parts of chlorine to a million parts of water. To eliminate mathematical calculations, it is safe to use the following quantities and method to disinfect the different sizes and depths of wells:

- A. Use one quart of the commercial 5 percent chlorine solution for each 100 feet of well depth in a drilled well which is four inches in diameter. For two-inch driven wells, or smaller, add one cup for each 25 feet of water.
- B. The measured chlorine should be diluted with water in a bucket to make about three (3) to five (5) gallons of solution. Water drawn from the contaminated well is suitable for this purpose.
- C. Pour the diluted chlorine solution directly into the casing of a single tubular well, or into the annular space between the outer casing and the drop pipe of a double tubular well.
- D. If the well is sealed and the pump drop pipe is not equipped with a foot valve at the bottom, and does not have a cylinder in the way, it is also possible to pour the solution down through the pump and drop pipe.

2. Allow Time for Disinfection of the Water Source and Distribution System

After the well has been dosed with the appropriate amount of chlorine solution, it should be pumped just long enough to bring the treated water through the pump to all faucets on the distribution system. The odor at the faucets will be a good test to indicate chlorine presence. If the above dosages do not

produce an obvious chlorine odor in the water, add slightly more chlorine bleach solution until a distinct odor is noticed. Let the chlorinated well and distribution system stand unused for 12 to 24 hours. This will allow time for the chlorine solution to disinfect the well and distribution system. After at least 12 hours, the system should be pumped to waste until no further trace of chlorine is noticeable in the water. If you have public or municipal sewers, run each tap until the disinfectant odor disappears, while allowing the water to go down the fixture drain. If you have a septic system, it is preferable to first connect a garden hose to an outside faucet or hydrant and run the water into a roadside ditch or drainage swale until the disinfectant odor disappears. Then, turn on each water faucet to discharge the chlorine residual in the immediate vicinity of the faucet.

3. Sample the Water for Bacteriological Analysis Before Use

Following disinfection of the water supply system, the water should be sampled for bacteriological analysis to determine if it is safe to use. Remember that no water should be used for drinking or food preparation, unless it is first boiled or treated, until a satisfactory report is obtained from a laboratory. The safety of water cannot be judged by color, odor, or taste. The organisms that cause water-borne diseases cannot be seen. Contact your local health department for laboratory information in your area.

For the disinfection of Dug Wells, Cisterns, or other well water information, please contact your local health department or the Environmental Public Health Division for assistance.