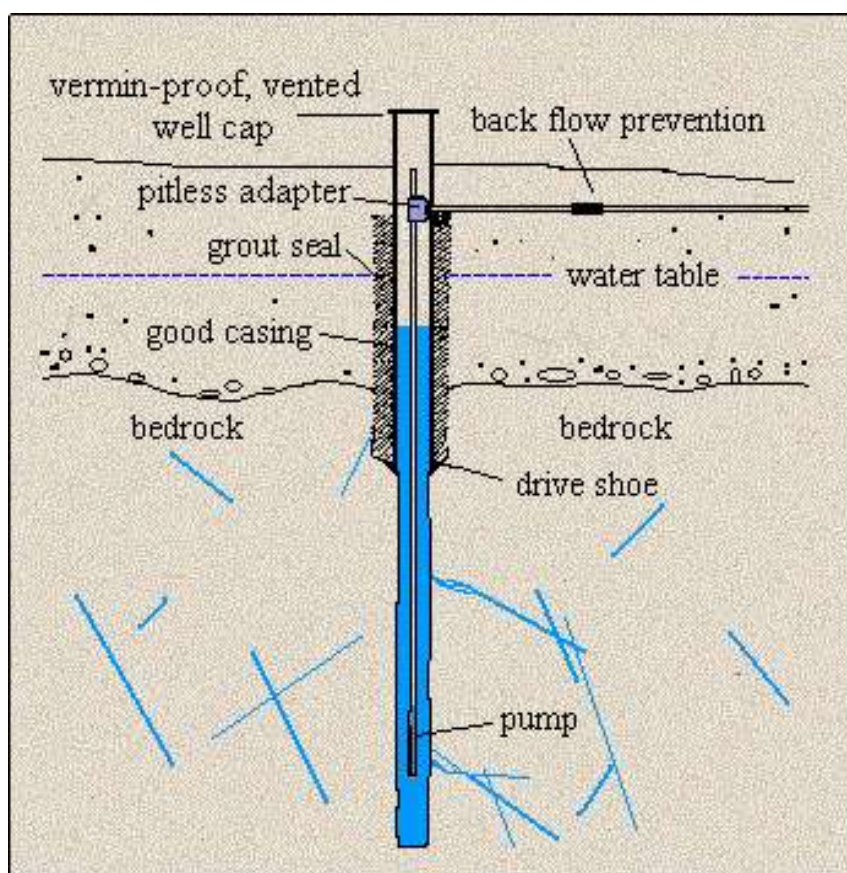


**BUCKS COUNTY DEPARTMENT
OF HEALTH**

– HOME WELL DISINFECTION –



Drilled well with submersible pump

DISINFECTION OF WELLS

The disinfection procedure described below is only a temporary measure. It should **not** be considered as a permanent solution for water supplies that are continually exposed to contamination from improper and substandard construction and/or improper location. Any water supplies with substandard construction should be repaired and upgraded to proper standards prior to utilizing disinfection procedure.

Disinfection of ground water supplies should **always** be performed when any of the following conditions occur:

1. Upon final development of a new well supply.
2. When repairing or upgrading of the well, pumping equipment or distribution system lines is completed.
3. If the existing well has been temporarily flooded or subjected to other possible contamination.
4. Upon receipt of a laboratory report indicating coliform bacteria contamination is present in the water supply.

NOTE: For items #3 and 4, well construction should be investigated first and upgraded if necessary prior to disinfection.

MATERIALS NEEDED TO ACCOMPLISH DISINFECTION

A two gallon bucket and a length of garden hose long enough to reach from a hose bib faucet to the well casing and the quantity of chlorine liberating compound listed below in the “disinfection procedure”.

Chlorine liberating compounds are sold at grocery, hardware and swimming pool supply stores under various names. A partial list of representative compounds and the approximate percent available chlorine contained in each are as follows:

Liquid form

Sodium hypochlorite (household bleach)

1. Generally has 5.25% available Chlorine
2. Generic brand may contain less available

Granular form

Calcium hypochlorite - 65%

1. HTH
2. Perchloron chlorine “**Industrial Sodium**”
hypochlorite

Generally sold in five gallon carboys or containers available at swimming pool supply houses - 10% to 15%

NOTE: Always check the container label for correct percentage of available chlorine contained in the specific product and correct dosages accordingly.

DISINFECTION PROCEDURE

1. Remove any covering over the well casing. This will permit access to the water source.
2. If the liquid form of chlorine compound is used (approx. 5.25% available chlorine), mix a total of about two quarts with four buckets of water. If the granular form of chlorine is used (approx. 65% available chlorine), mix a total of 10 tablespoons (approx. 5 ounces) with four

buckets of water. The process of mixing the chlorine with four buckets of water is necessary for the following reasons:

- a. To disperse the disinfectant as evenly as possible throughout the water supply.
 - b. To prevent a concentrated solution of chlorine from corroding the pump and other metal parts.
 - c. To add sufficient weight so the disinfectant is forced into the surrounding water bearing formation and aquifer.
3. The amounts of chlorine listed under Item #2 will disinfect approximately 100 to 150 feet of water in a six inch diameter cased well.
 4. A garden hose should be connected to a faucet (preferably an outside faucet) with an adjustable nozzle attached to the end of the hose. The chlorine compounds, buckets, a stirring device and the hose end should be at the well location.
 5. Mix the proper amount of chlorine compound in the bucket of water and pour the solution into the well. This procedure should be done in a circular motion as to wash down the inside of the casing with the chlorine solution. Repeat with the remaining buckets of water.
 6. Turn the hose on and adjust the nozzle so it will create a spray against the inside of the casing. When the odor of chlorine is detected in the water coming from the hose nozzle, lower the hose slowly down the well casing as far as possible. Wash down the casing several times with chlorinated water by raising and lowering the hose. It may be difficult to distinguish the odor of chlorine at the nozzle, therefore, you may wish to turn on a kitchen faucet and have someone smell for the odor of chlorine.
 7. The chlorinated water must be drawn to all fixtures by opening the fixture valve and operating the pump until the smell of chlorine is evident at each fixture. This includes both hot and cold water faucets. When the chlorine smell is detected, close all fixture valves. This will insure that all piping will be properly disinfected.
 8. Allow the chlorine solution to remain in the entire water supply at least eight hours and preferably overnight. After disinfection, pump the well thoroughly by opening some fixture valves until the odor of chlorine can no longer be detected in the water being discharged.
 9. An additional water sample should be taken five to seven days after disinfection of the well to be certain the water has no continuing contamination and is safe to drink. All chlorine introduced during the disinfection process should be cleared from the well by that time.
 10. If the water supply remains contaminated following the resample, permanent disinfection like an Ultra Violet (UV) water treatment system or a chlorinator should be considered.

**For questions or additional information please call one
of the following Offices:**

Doylestown Office

**Neshaminy Manor Center
Health Building
1282 Almshouse Road
Doylestown, PA 18901
215-345-3336**

Levittown Office

**Bucks County Government Services Center
7321 New Falls Road
Levittown, PA 19055
267-580-3510**

Quakertown Office

**Bucks County Government Services Center
261 California Road
Quakertown, PA 18951
215-529-7000**



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