Why should I shock my well and plumbing?

A: The shocking (<u>disinfection</u>) of a well and plumbing system destroys any possibility of bacterial contamination to be present in the system. This process will only kill <u>bacteria</u> present in the system at the time of disinfection and is not designed for an ongoing contamination problem.

Do I need to have someone shock my well or can I do it?

A: Ideal Water, as part of the services we perform, can shock your well for you. However, the directions for this process are here, should you choose to do it yourself.

How do I shock my well?

A: Ideal Water provides the following information to give you, the consumer, the understanding of the process of chlorinating a <u>well</u>. Although the instructions here are universally accepted, variables may exist that may need to be addressed. Because of this, Ideal Water recommends contacting a qualified professional. Ideal Water is always available to perform such services and will gladly set an appointment to do so.

CAUTION!

One should always use caution when working with chlorine products. ALWAYS follow the manufacturer's safety directions. It is recommended that rubber gloves, protective clothing and safety goggles be worn. Wash immediately if you come into contact with chlorine. Electrical hazards also exist; it is recommended that the power to the well be turned off prior to any work being performed.

Determining the amount of <u>bleach</u> needed to shock the well:

In general, for clear well water use 3 cups of regular (unscented) bleach per 100 feet of depth of the well. For example, if your well is 300 feet deep, use 9 cups of bleach; if your well is 110 feet deep, use 3 cups, etc. Well water containing hydrogen sulfide (rotten egg odor), iron (brown water) or manganese (black water) will require additional bleach since chlorine is used up by these contaminants through a chemical reaction. Due to the presence of many organic contaminants in the Mid-Hudson Valley we recommend ½ to 1 full gallon of bleach for every 100 feet of well depth.

Adding the bleach into the well:

Remove and inspect the well seal on top of the well casing (it should not be cracked and should fit snugly on the well casing). Some older wells maybe buried which would require that the soil be removed to expose the top of the well casing so the seal can be accessed (buried wells are more

susceptible to contamination, it is recommended that the well casing be extended to 12" above the ground surface). Dilute the bleach by about 50% and pour the bleach into well casing by having it wash down the inside of the casing. Attach a garden hose to an outside spigot and put the end of the hose into the well casing. Turn on the spigot and let the water in the hose run for about 1/2 hour into the well. After the 1/2 hour, smell the water coming out of the hose; if it does not smell of chlorine, continue to let it run into the well and smell it every so often until the chlorine odor is present. If a chlorine odor is not detected add more bleach until a chlorine odor is detected; this maybe necessary due to hydrogen sulfide, iron or manganese in the well water.

Once the odor of chlorine is detected, turn off the hose. If you have a <u>water softener</u>, <u>activated carbon</u> or other water treatment system put it on bypass NOW so the chlorine will not damage the unit or be removed by it. Turn on each water faucet in the house until you can smell chlorine; this is necessary in order to disinfect the whole house plumbing system, which may have been contaminated. Reinstall the well seal on the casing and let the system sit at least 8 hours or overnight. DO NOT use the water during this time, in order to get the best contact time in the pipes and well, and because the water will be highly chlorinated.

Flushing out the bleach after disinfection:

After disinfection it is necessary to flush out the highly chlorinated water so the water can be used for domestic purposes. It is important NOT to run the highly chlorinated water into the sewer system to avoid disrupting or overloading the system. It is recommended that the garden hose be used and the chlorinated water be flushed onto the driveway away from vegetation of value. Flush the well until no or only a slight chlorine odor can be detected. A swimming pool chlorine test kit can be used. Then go into the house and turn on all the faucets for 5-10 minutes to flush the highly chlorinated water out of the house plumbing system.

If you noticed a brown (iron) or black (manganese) discoloration of your water during disinfection, It is recommend that an empty load of laundry be run to ensure that all discolored water is flushed from the pipes supplying the washing machine. This problem is caused by chlorine reacting with iron and/or manganese in your water. This reaction creates a colored precipitate that can stain your clothing and plumbing fixtures.

Testing your water after disinfection:

Once you have disinfected the well, it will be necessary to test your water (again) to be sure the problem of bacterial contamination has been solved. It is very important to WAIT 7-10 DAYS AFTER DISINFECTING YOUR WELL TO RETEST YOUR WATER. This amount of time is necessary in order to obtain a representative water sample from the aquifer. If a sample is collected before this amount of time and there is a problem with bacterial contamination, it may not show up, and you may risk the possibility of becoming ill from drinking your water. Dutchess County, NY Health Department.