



If you rely on a well for your water, you may have to chlorinate it from time to time. Chlorination refers to the process of flushing your well and water system with a chlorine solution.

This process is usually applied in order to accomplish one of the following:

- Disinfecting to “neutralize” coliform bacteria
- Disinfecting after making repairs to your well or following extended periods of non-use
- Temporary elimination of hydrogen sulphide (or “rotten egg”) odours
- Temporary removal of iron and manganese build-up
- Removal of bacteria that create slime

This pamphlet outlines steps to assist you in chlorinating your well and water system.

**PLEASE BE SURE TO READ ALL OF THE INSTRUCTIONS BEFORE PROCEEDING!**



Here are the steps to follow:

- 1 Before you begin the chlorination process, store enough water to meet your household needs for a minimum of 24 hours.
- 2 Next, remove any filter, water conditioners, or any type of water treatment system, or find a way to by-pass them during chlorination.
- 3 Use the chart below to determine the amount of chlorine solution that is recommended for your water system. For dug wells use approximately 1 litre of chlorine solution for every 100 litres of water.

**Note:** The chlorine solution is simply common unscented household bleach, containing 3-5% sodium hypochlorite.

Well Depth (ft)	Vol. of Chlorine Solution (litres) per diameter of Well		
	4 inch	5 inch	6 inch
less than 50	1	2	3.5
50-100	2	4	7
101-150	3.5	7	10
151-200	4.5	9	13.5
201-250	5.5	11	17
251-300	7	13.5	20.5
301-350	8	16	24
351-400	9	18	27

- 4 Pour the chlorine solution into your well. If your well head is buried, excavation is probably required. An alternative is to apply the chlorine solution through an air line, if there is one leading from the well to your home.

There are two methods for using the air line: You can either insert the air line into the container of chlorine solution and pump your well until all of the solution is consumed, or simply pour the solution into the air line. (If you use either of these methods, flush the air line out with clean water after chlorinating your well.)

- 5 Attach a garden hose to an outside faucet and place the other end into the well. Turn on the outside faucet and allow the water to circulate for approximately 1 hour.

**Note:** If your well head is buried and you choose not to excavate, or the garden hose cannot be connected to the air line, please disregard this step.

- 6 Open each faucet in your water distribution system, (including inside and outside faucets, cold and hot water faucets, dishwashers, toilets, baths and showers), one at a time, until the smell of chlorine is apparent, then quickly shut them off. This will thoroughly chlorinate your water distribution system.

**Note:** During this procedure, chlorinated water that is permitted to enter your sewage system should be kept to a minimum, as an excess amount of chlorine may affect the biological activity of a septic tank system.

- 7 Do not operate your water system for a minimum of 8 hours (overnight, for example) or longer if possible. A 24 hour period is recommended, but may not always be practical.

- 8 Place the end of your garden hose in an outside location where the chlorinated water will not run into a natural waterway (such as a stream, brook, lake etc) or damage any desired vegetation (like your vegetable garden). Allow the water to flow until a strong chlorine odour is no longer apparent (generally 2 to 3 hours). If you have a low yield well, be careful not to pump the well dry.

**Note:** During this procedure, the water may have the colour of tea, but the colour will improve after a short of period of time. Aeration screens in faucets and the cold water inlet of washing machines may become plugged with sediment. For water systems equipped with jet pumps, there is also a possibility that the jet may become clogged with sediment. It’s important to keep this in mind, especially if the jet is located in the well column, which may require excavation of the well head.

- 9 Turn on each faucet in the house (one at a time), and run the water until the odour of chlorine is no longer present. It is recommended that you do not drink the water during this flushing period.

- 10 Once the flushing process is complete you may resume normal use of your water, keeping in mind that it may be two to three days before the chlorine odour and taste is completely gone.

**Note:** If you chlorinated your well to address a coliform bacteria problem, you should have your well water tested at an accredited lab before you begin using it again. To do this, you will need to collect a water sample about one week after you’ve chlorinated your system and have it analyzed immediately after collecting it (within 24 hours).

- 11 If the chlorination process results in a noticeable improvement in your water quality, but the problem redevelops after two to three weeks, repeat steps 1 to 9, using two to three times the amount of chlorine solution recommended for your water system. In addition, you should increase the period of time in which you do not operate your water system (step 7) to a minimum of 24 hours.

#### A FINAL NOTE

Depending on the characteristics of your well water quality, it may be necessary to chlorinate your well water system more than once a year. Chlorination may or may not improve your water quality, and in some cases, provide only a temporary, or short-term solution.

There are many household water treatment systems available that are approved by the National Sanitation Foundation (NSF). Look for a listing of retailers who carry these systems, in the yellow pages of the telephone book.

#### Questions? Need more information?

##### Be informed

If you have any questions or require additional information, please contact any office of the New Brunswick Department of Environment. You can also contact the Department of Environment by calling our general number (506) 453-2690 or by visiting our website at the following address: [www.gnb.ca/environment](http://www.gnb.ca/environment).

You can contact any office of the New Brunswick Department of Health or visit their website at this address: [www.gnb.ca/health](http://www.gnb.ca/health).