



WATER SYSTEM DISINFECTION PROCEDURE

SCHD061003C



Published by the Water Section of the Sarasota
County Health Department

Sarasota Office
Telephone: (941) 861-6133
Fax: (941) 861-6152

Venice Office
Telephone: (941) 861-3310
Fax: (941) 861-3326



If you suspect that your water supply is contaminated with harmful bacteria, we suggest that you call a state-certified laboratory to verify your concerns before undertaking any of the techniques outlined in this document.

If your water supply has been tested by a state-certified laboratory and found bacteriologically unsafe for drinking, the following procedure can be followed.

NOTE: *We highly recommend that you hire a certified well contractor or water system operator to chlorinate your water system. The Sarasota County Health Department assumes no responsibility for any use of the information contained herein or any loss resulting therefrom.*

This procedure should not be confused with routine maintenance. Repeated doses of high chlorine concentrations can damage equipment such as softeners, bladder tanks, or septic systems. Maintain your system in good working order and perform disinfection only when absolutely necessary.

Chlorine

Use only a liquid sodium hypochlorite solution such as common household bleach or pool chlorine. **Do NOT use scented bleach or stabilized pool chlorine tablets.** Also, be aware that pool chlorine solutions have a limited shelf life. If your pool chlorine is more than 2 weeks old, assume that it is no longer effective.

Before You Begin

Since chlorination procedures can take as long as 8 hours, store enough water for consumption and cooking purposes. If you suspect that the water is bacteriologically unsafe, boil or add chlorine to the stored water (see Emergency Disinfection of Drinking Water). Also, plan ahead. We recommend that you chlorinate your system in the evening and let it sit overnight.

Disinfection (with Aerator)

1. Turn off the electrical power to the well pump.
2. If your water system has an aerator, drain the aerator by removing the plug at the bottom of the aerator.
3. Remove the lid and check the screens for damage. If the inside is dirty, clean thoroughly.
4. Remove any carbon filtration devices in the system. Carbon filters will remove the chlorine, making chlorinating your system a futile exercise. This would also be a very good time to replace your filters as they can harbor potentially harmful bacteria if they have not been replaced recently.
5. Turn on the pump and rinse the inside of the aerator for approximately 5 minutes, and then replace the drain plug.
6. Allow the aerator to fill with water, and then add 2 quarts of household bleach or 1 quart of pool chlorine.
7. Turn on the pump, and then pump the chlorinated water through the water system. *Every* outlet, including outside hose bibs, should be allowed to run until a strong smell of chlorine is detected.

- **Do not run large volumes of this water into a drain leading to your septic tank. High chlorine levels may do heavy damage to septic systems.**
 - **Notify all users of water that a large amount of chlorine is in the water system and that the water should not be used for drinking, cooking, or bathing until the chlorine is flushed from the system.** (Toilet flushing is okay if necessary)
8. When the smell of chlorine can be detected at each outlet, turn the water off and let it sit in the lines for 6-8 hours. (Overnight is a good time to do this.)

Disinfection (without Aerator)

If you do not have an aerator, you must chlorinate the pressure tank. If your pressure tank is a bladder type, refer to well chlorination procedure (SCHD061003B). If it is a steel pressure vessel type:

1. Turn off the electrical power to the well pump.
2. Depressurize the system by running water.
3. Remove the plug and pour 1 cup of household bleach or ½ cup of pool chlorine. Reinstall the plug.
4. Turn the pump back on and follow steps 7 – 8 above

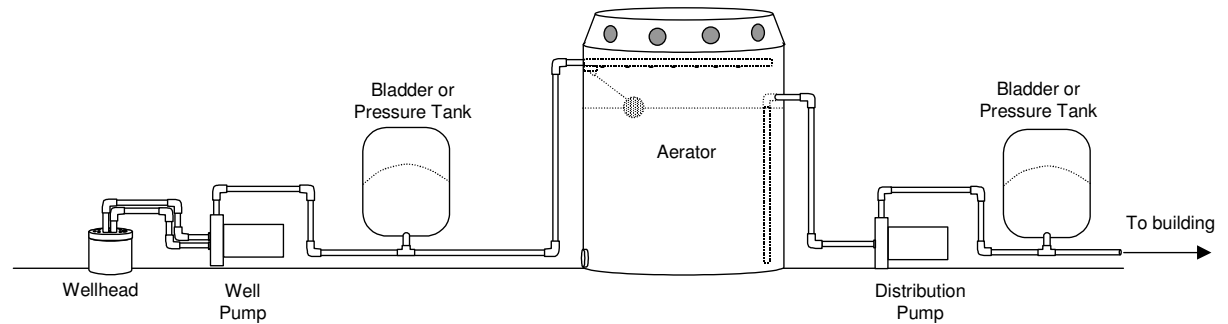


Figure 1: "Typical" drinking water system

Flushing the System

Run raw water taps and / or hose bibbs to flush the majority of the highly-chlorinated water from the system. Once there is no odor of chlorine from the outside taps, open all other outlets (including sinks) and flush the toilet until the chlorine odor is no longer detectable.

Take the time to inspect the components of your water system. A few things to look for:

- Ensure that the aerator screens are intact and in good repair.
- Make sure the aerator lid is screwed down, making a good seal on the rubber gasket.
- Make sure that all holes in the aerator (other than the screens) are properly covered and / or sealed.
- If you have bladder-type pressure tanks, make sure that the bladders are in good repair and that the tank is not waterlogged.
- Ensure that the sanitary seal on your wellhead is in good repair and properly sealed to the casing.

When you have completed the above procedure, please contact a state-certified laboratory so that a sample can be taken.

A Public Service of the Sarasota County Health Department
Office of Environmental Health Services, Water Section

Sarasota:
1301 Cattlemen Rd
Building A
Sarasota, FL 34232
Telephone: (941) 861-6133
Fax: (941) 861-6152

Venice:
4000 S Tamiami Trl
Venice, FL 34293
Telephone: (941) 861-3310
Fax: (941) 861-3326