Healthy Home Solutions
Well Disinfection & Chlorine Purging Process

Important (Read First)

- Do not use water for drinking, cooking, bathing, or washing until all chlorine has been purged and the system has been tested and confirmed safe.
- Use chlorine test strips (provided) to verify chlorine levels.
- Always discharge chlorinated water in a way that protects your septic system, landscaping, and waterways.
- Use extreme caution around electricity and water. If you are not confident working safely with electricity, contact a licensed well contractor.

Tools & Materials

- Well sanitizer **chlorine tablets/pellets** (per Well Safe kit instructions)
- Garden hose long enough to reach from a faucet to the well and to a safe discharge area
- Clean 5-gallon bucket
- Funnel (recommended)
- Protective goggles/face shield and rubber gloves
- Chlorine test strips (including strips that can read down to 0 ppm)
- Optional: 10’ length of 3/4” PVC pipe (to get by restrictions in the well)

How to Calculate the Amount of Tablets/Pellets Needed

Choose your target concentration

- **Standard well sanitizing:** target **100 ppm** chlorine.
- **If sanitizing for iron bacteria, slime-forming bacteria, or sulfate-reducing bacteria:** target **170 ppm** chlorine.

Quick formula (weight-based)

- Well Safe reference for ~100 ppm: **2 oz. of sanitizer pellets/tablets per 100 gallons**

Step-by-step calculation

1. **Estimate gallons of water in the well**

- If you can, measure the **amount of water in the well** (total depth minus static water level). If you cannot, estimate from the well log/records – Well log generally provides all information needed including the hole diameter. If hole is lined with casing make sure you use the casing size on table below. https://dwr.state.co.us/Tools/WellPermits
- Use the following table to estimate gallons based on well diameter and water column per 100 ft of water:

Well Diameter	Gallons of Water per 100 ft.	Conversion Factor
2”	20	0.20
3”	40	0.40
4”	70	0.70
5”	110	1.10
6”	150	1.50
8”	260	2.60

2. **Convert your water column to gallons**
   - **Gallons in well** = (Well Depth – Static Water Level) X Conversion Factor
3. **Calculate your house hold water in gallons**
   - **Gallons in house** = Pressure tank(s) gallons + Storage tank(s) gallons + Water Heater(s) gallons + 20 gallons for typically household plumbing capacity
4. **Calculate total ounces of tablets/pellets**
   - For **100 ppm**:
     - **Ounces needed** = (Gallons in Well + Gallons in house) X **2 oz.**
   - For **170 ppm** (iron/slime-forming/sulfate-reducing bacteria):
     - Ounces needed =(Gallons in Well + Gallons in house) X **3.4 oz.**
     - (Because 170 ppm is 1.7× the 100 ppm dose.)
5. **Helpful conversion (if needed)**
   - 16 oz = 1 lb

Tablet/pellet count (if you need it)

- The Well Safe kit provides this reference: **2 oz. of granules = ~70 pellets**.
- If your product lists pellet/tablet weight, you can convert weight to count.

Notes

- As a general rule, it is better to use too much sanitizer than too little. If too much sanitizer is used, it will simply take longer for the taste and odor to leave the system.

Step-by-Step: Disinfection Procedure

Step 1 — Prepare the System (Bypass/Protect Equipment)

1. Bypass all water treatment devices (softeners, filters, RO systems, etc.).
2. Remove filters from devices and appliances. These may harbor organisms and need to be disinfected separately per manufacturer instructions or replaced after purging.

Step 2 — Access the Well

1. Remove the well cap or seal.
2. If needed use a pipe to get by any restriction in the well (a 10’ length of 3/4” PVC is usually ideal). Generally this is not needed as most wiring can be moved out of the way and any tablets that land on the pit less adapter should be able to be washed off the adapter with the hose during circulation.

Step 3 — Add Chlorine Tablets/Pellets (Sanitize the Bottom of the Well)

1. Drop one tablet into the well and listen to hear if the tablet hits the water (you will hear a “plink” sound).
2. If the tablet hits the water, drop the remaining determined number of sanitizing tablets needed into the well.

Step 4 — Circulate to Mix Chlorine Throughout the Well

1. It is necessary to circulate the water in the well to mix the sanitizer thoroughly throughout the entire water system.
2. Connect a hose to an outside hose faucet that is located after the pressure tank and run water back down the well (this also rinses upper portion of well and can rinse any pellets off the pit less adapter or that get caught up in the wiring).
3. Circulate water in the well for at least 15 minutes per 100 gallons of water.

4. After circulating, a strong chlorine odor should be present and the chlorine test strips should be at your target concentration level; if not, repeat Step 3.

Step 5 — Bringing Chlorine into the home

1. From the furthest bath tub location turn on the hot water and run until strong chlorine odor is present and confirm presence of chlorine with test strips (depending on size of hot water heater and possibly water storage this may take a while.)
2. From the same bath tub location turn on the cold water and allow to run until chlorine test strip confirms the presence of chlorine.
3. Complete this process at every location where water is present in the home.
4. Run a short cycle with an empty dishwasher and washing machine to bring chlorine into these appliances.
5. Empty ice maker ice (allowing for new ice to be made with chlorine present)

Step 6 — Disinfection Time (Let it Sit)

1. Let stand for at least 12 to 24 hours.
2. Note: The high level of chlorine required to sanitize a water system is corrosive to most metals and the chlorine solution must not remain in the water system more than thirty-six (36) hours before completely flushing from the system.

Step-by-Step: Purging Chlorine from Your Well, Plumbing, and Hot Water Heater (While Protecting Your Septic System)

Important: Do not use water for drinking, cooking, bathing, or washing until all chlorine has been purged and the system has been tested and confirmed safe (Use chlorine test strips.) Always discharge chlorinated water in a way that protects your septic system, landscaping, and waterways.

1. **Restore Power to the Well Pump**

Turn ON the circuit breaker to your well pump if this has previously been turned off (Not Typical)

2. **Flush Chlorinated Water from the Well**

Connect a garden hose to an outside faucet or other location inside the house if outside faucet is not present. Direct the hose to a safe discharge area, well away from your well, septic system, landscaping, and any water bodies. Run water until the chlorine odor is gone and test strips read 0 ppm. This may take 30 minutes to 24 hours or more, depending on your system. Water may appear discolored at first – this is normal. Monitor the flow. **If water flow drops significantly, turn off the power to your pump. Generally, this means that the well is no**

longer producing water at a rate that will allow you to continue to drain the well. Many professionals will suggest you turn off the power to your pump and give your well time to recharge with water, before proceeding to purge the Chlorine from your well. Once allowing the well time to replenish the water then start back at step 1.

If you continue to have slow to no flow then contact a licensed contractor as you may be having issues with your pump or pressure tank system.

3. **Purge the Hot Water Heater (Protect Your Septic!)**

Option A: Drain the Hot Water Heater Directly (Preferred for Septic Health): Attach a garden hose to the heater's drain spout. Run the hose to a safe discharge area away from your septic system. Open the drain valve and allow the tank to empty until you no longer smell chlorine or test strips read 0 ppm. Close the valve, remove the hose, and ensure no leaking.

Option B: Run Hot Water Indoors (If Draining Isn't Possible): Open hot water taps inside your home and run until the chlorine odor is gone or test strips read 0 ppm.

Caution: This will send chlorinated water into your septic system.

If you use this method: Wait 7–10 days after thoroughly flushing your plumbing system before adding any bacterial additives to your septic system(these can be purchased online.) This allows any residual chlorine to dissipate and prevents killing the newly introduced healthy septic bacteria.

4. **Flush All Faucets, Fixtures, and Appliances**

Remove faucet aerators to prevent clogging. Run both hot and cold water at each tap until there is no chlorine odor or test strips read 0 ppm. Don't forget showers, tubs, toilets, washing machines, dishwashers, exterior faucets, and outbuildings. Make sure to dispose of ice and let the machine refill the ice then dispose of the next batch as well.

5. **Verify Chlorine Removal**

Use chlorine test strips at each outlet—especially at the furthest points from the well. Only proceed when all readings are 0 ppm and there's no chlorine odor. 0 ppm is not always attainable immediately and may take time to achieve as some rocks are more porous.

Key Takeaway: Always ensure all chlorine has been fully flushed from your entire water system. Any residual chlorine can harm the beneficial bacteria in your septic tank. If you have questions about your specific setup, feel free to reach out—Healthy Home Solutions is here to help!

Return Equipment to Service

1. Return all equipment to service position (take treatment devices out of bypass) after they have been disinfected per manufacturer instructions.
2. Replace filters after the system is confirmed chlorine-free.

Post-Disinfection Water Testing

1. The water should be tested 2 to 3 weeks after sanitizing.
2. If bacteria, iron bacteria, sulfur, or other problems recur, contact your Healthy Home Solutions for further treatment recommendations.