



# TEXAS DEPARTMENT OF LICENSING & REGULATION

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## PRIVATE WELL DISINFECTION

Occasionally well water can become contaminated with disease-causing microorganisms. These “waterborne” infectious diseases include typhoid, cholera, dysentery, and many others. These illnesses are caused by microorganisms in the intestines of infected people and animals, which may not always appear to be sick. Water supplies can become contaminated when feces (bodily wastes) are not properly disposed of, and seep into underground water.

Disease producing microorganisms can be very difficult to detect in water samples, but coliform bacteria can be easily detected. “Coliform bacteria” are a group of microorganisms that normally do not cause disease, but are found in the intestinal tract of all warm-blooded animals. When coliforms are detected in water, it indicates possible contamination from human or animal feces. Immediate action should then be taken to eliminate the contamination and disinfect the water system.

If a doctor suggests that gastric cramps or chronic diarrhea may have been caused by contaminated water, well disinfection should be performed immediately. Water samples should be submitted for analysis prior to disinfection. Recently constructed or repaired wells must be disinfected to prevent bacterial growth in the well and in the plumbing system.

### ***Well Disinfection***

1. Locate the wellhead and remove an access plug (figure1) or bolt so that the area within the well casing is exposed.
2. Use a funnel to pour the appropriate amount of liquid chlorine bleach into the well. See the table below for amount of chlorine bleach required.

### **Chlorine Bleach Dosage Table for Well Disinfection**

<b>Well Depth</b>	<b>Gallons of Bleach</b>
Less than 100 ft.	½ to 1 gallon
100 to 200 ft.	1 to 1-½ gallons
200 to 300 ft.	2 gallons
300 ft. and greater	2-½ gallons or more

*These dosages are approximate. Greater amounts are recommended for excessively cloudy water or for hand-dug wells.*

3. Using a nearby faucet and a garden hose, allow the water to run through the funnel into the well for two to three hours. This will circulate the chlorinated well water and improve the germ-killing action by allowing all fittings and equipment in the well to be exposed to the chlorine solution.
4. After the well water has circulated for a while, the garden hose may be removed and the access plug replaced. The disinfection process should then be extended throughout the entire plumbing system.
5. To disinfect the remainder of the plumbing system, turn on the next available faucet and allow it to run until the bleach odor can be detected, then turn it off. Repeat this process until every faucet has been disinfected. Allow the chlorinated water to remain in the plumbing system overnight, or for 24 hours if possible. During this time, the water should not be used for drinking or cooking.

6. After disinfecting the well and the plumbing system, flush all of the faucets until the bleach odor disappears and the water is clear of any debris or color. Flush the outside faucets first to avoid chlorinating the septic system.
7. Resubmit another sample to determine if the system has been successfully disinfected.

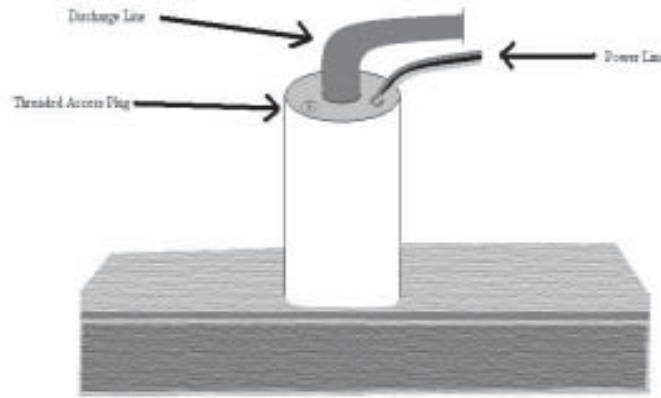


Figure 1.

Public Health Laboratories Sample containers may be obtained and returned for analysis from the public health laboratories listed here. Contact the laboratory for hours of operation and cost information.

Abilene-Taylor County Public Health District 2241 South 19th Abilene, TX 79605 (915) 692-5600	City of Amarillo Department of Health P.O. Box 1971 4001 S. Osage Street Amarillo, TX 79186 (806) 342-1549
Angelina Neches River Authority 210 Lufkin Ave. P.O. Box 387 Lufkin, TX 75902-0387 (409) 632-7795	Brazoria County Health Department 434 E. Mulberry Angleton, TX 77515 (409) 864-1484
Brazos County Health Department 201 N. Texas Avenue Bryan, TX 77803-5317 (409) 361-4440	Corpus Christi-Nueces County Public Health Dist. P.O. Box 9727 1702 Horne Road Corpus Christi, TX 78469 (361) 851-7214
El Paso County Health District 222 South Campbell El Paso, Texas 79901 (915) 543-3536	Galveston Country Health District P.O. Box 939 1207 Oak Street LaMarque, TX 77568 (409) 938-7221 Ext. 449

<p>Greenville-Hunt County Health Department  Courthouse, Room 402  2500 Lee Street  Greenville, TX 75401  (903) 408-4140</p>	<p>Houston Health and Human Services  1115 S. Braeswood  Houston, TX 77030  (713) 558-3400</p>
<p>Laredo City Health Department  P.O. Box 2337  2600 Cedar Street  Laredo, TX 78041  (956) 723-2051 Ext. 259</p>	<p>Lower Colorado River Authority  3600 Lake Austin Blvd.  P.O. Box 220  Austin, TX 78767  (512) 473-3322</p>
<p>Lubbock City Health Department  P.O. Box 2548  1902 Texas Avenue  Lubbock, TX 79405  (806) 775-2908</p>	<p>Midland Health Department  3303 W. Illinois Space 22  Midland, TX 79703  (915) 681-7613</p>
<p>Nova Biologicals, Inc.  1775 E. Loop 336  Suites 4 &amp; 5  Conroe, TX 77303  (936) 756-5333</p>	<p>Paris-Lamar County Health  Department P.O. Box 938  740 South West 6th Street  Paris, TX 75460  (903) 785-4561</p>
<p>Port Arthur City Health Department  P.O. Box A  431 Beaumont Avenue  Port Arthur, TX 77641  (409) 983-8830</p>	<p>City of San Angelo Water Treatment Plant Lab.  1324 Metcalfe St.  San Angelo, TX 76903  (915) 481-2722</p>
<p>San Antonio Metropolitan Health District  332 West Commerce  San Antonio, TX 78205  (210) 207-8820</p>	<p>Smith County Public Health Department  P.O. Box 209  815 N. Broadway 75710  Tyler, TX 75710-0209  (903) 535-0090</p>
<p>South Texas Hospital  P.O. Box 592  1301 South Rangerville Rd.  Harlingen, TX 78551 (956) 423-3420</p>	<p>Sweetwater-Nolan County Health  Department P.O. Box 458  301 E. 12th Street  Sweetwater, TX 79556  (915) 235-5463</p>
<p>Tarrant County Public Health Department  1800 University Drive  Fort Worth, TX 76107  (817) 871-7249</p>	<p>Texarkana Water Utilities Lab  P.O. Box 2008  2700 New Boston Rd.  Texarkana, TX 75501  (903) 798-3800</p>

<p>Texas Department of Health 1100 West 49<sup>th</sup> Street Austin, TX 78756 (512) 458-7591</p>	<p>Trinity River Authority Northern Division P.O. Box 531196 6500 W. Singleton Blvd. Grand Prairie, TX 75212 (972) 263-2251</p>
<p>Trinity River Authority Lake Livingston Project FM 1988 - P.O. Box 360 Livingston, TX 77351 (936) 365-2292</p>	<p>Victoria County Health Department P.O. Box 2350 107 W. River Street Victoria, TX 77902 (361) 578-6281 Ext. 41</p>
<p>Waco-McLennan County Health District 225 West Waco Drive Waco, TX 76707 (254) 750-5471</p>	<p>Wichita Falls-Wichita County Health Department 1700 Third Street Wichita Falls, TX 76301 (940) 761-7873</p>