wellcare® information for you about

PROTECTING YOUR PIPES
AND WELL SYSTEM FROM FREEZING

Your Well System

Help keep your well from freezing with a pitless adapter. A pitless adapter attaches to your well casing to provide a sanitary and frost proof seal between the casing and the water line running to your home. This device protects the water from freezing and permits convenient access to the well and well components without having to dig around the well. The adapter is connected to the well casing below the frost line, which is the depth at which the ground does not freeze. Water from the well is diverted horizontally at the adapter to prevent it from freezing. Contact your licensed well contractor to discuss installing a pitless adapter.

You should also protect your wellhead from getting damaged by snow and heavy equipment like snow blowers and plows. There are still older wells out there that are in a driveway, close to the driveway, or close to a road. Consider adding a fiberglass driveway marker to help with locating the well. If your well gets covered by snow you will be able to find it and carefully remove the snow around it.

Freezing temps on the way and no time to make adjustments?

If your wellhead is exposed to outside elements and freezing temperatures are on the way, wrap it with insulation, blankets, towels, or anything else you can find that will not cause damage to the wellhead but can help protect it from the cold.
Your Pump and Tank

Most well pumps are down inside the well at depths that do not freeze. However, if you have an above ground pump, it needs to be kept in an area where the temperature stays above 40 degrees in order to prevent the water in the pump and water lines from freezing. If the pump is located in an area where temperatures drop below 32 degrees, the pump should be housed in an insulated enclosure. The pump motor does generate some heat which can help prevent the pump from freezing inside an insulated enclosure.

Water tanks are also vulnerable to freezing and should be inside an insulated enclosure. If you are in a warmer climate your pump and tank may be outside. If your pump and tank are exposed and your area experiences unexpected days of freezing temperatures, wrap them with insulation, blankets, towels, or anything else you can find that will not cause damage to these components. A common issue is the ¼” by 3” nipple can freeze between the pressure switch and the tank tee or pipe. Insulate the ¼” nipple to prevent freezing in the future. Contact your licensed well contractor to help with enclosing your pump and tank and for help with additional preventive measures from freezing in the future.

Your Pipes

Use insulation, or rubber or foam pipe covers to wrap exposed pipes. If you don’t have access to these items use blankets, towels, or layers of newspaper. You can secure with duct tape and cover with plastic to keep out moisture. For extra protection in the areas of your home that are not heated, such as a crawl space or basement area, pipes may first be wrapped with special heating strips followed by an outer layer of insulation wrapped on top. For assistance, contact a licensed plumber in your area.

If your home has an outside faucet or spigot, there may be a shutoff valve somewhere inside of your home. Turn off the water supply to this faucet for the duration of the winter. First, close the shutoff valve then open the outside faucet to drain the remaining water from the pipe. This will protect the pipes that lead to the outdoors from freezing. If you do not have a shutoff valve, consider having one installed.

Try to spot any trouble with your pipes before it’s too late, keeping an eye out for signs that may signify your pipes are beginning to freeze. For instance, your water pressure or flow has dropped. If there is a cold spell and you fear your pipes are going to freeze despite the efforts you have made, there is still one more trick. Leave one of your faucets that is farthest from your home’s water supply open and running slightly or allow all faucets to drip. If the water is running, it will be less likely to freeze.

Pipe or well system already frozen?

If you have a pipe that is frozen, apply heat to the section of pipe using an electric heating pad wrapped around the pipe, an electric hair dryer, or a portable space heater (kept away from flammable materials).

Turn OFF the electrical breaker to the pump. Keep electric breaker to the pump OFF until nipple to pressure switch has warmed up and starts to function.

If you have a pipe that bursts or any problems with your well, contact your licensed well contractor or plumber as soon as possible.
Sample Water Well System

1. Check Valve
2. Rope Insert Adapter
3. Clamps
4. Heat Shrink Splice Kit
5. Torque Arrester
6. Safety Rope
7. Cable Tie or Tape
8. Cable Guard
9. Pitless Adapter
10. Male/Female Insert Adapter
11. Well Cap
12. Well Seal
13. Check Valve
14. Tank Tee
15. Drain Valve
16. Nipple
17. Relief Valve
18. Pressure Gauge
19. Pressure Switch
20. Power Disconnect
21. Control Box
22. Lightning Arrester
23. Ball Valve
24. Pressure Tank
25. Pump

This illustration is intended to represent some of the components that can be included in a water well system and is not intended as an installation guide. Check local codes for actual requirements and restrictions.
For More Information on Protecting your Pipes and Well System

Additional information on winterizing can be found in our information sheet, *Winterizing and De-winterizing Your Well*.

For more information on protecting your pipes and well system, contact your licensed well contractor, plumber, or the wellcare® Hotline at 888-395-1033 or info@wellcarehotline.org.

Information to help maintain and protect your water well system:

wellcare® is a program of the Water Systems Council (WSC). WSC is the only national organization solely focused on protecting the health and water supply of an estimated 23 million households nationwide who depend on private wells (according to the U.S. EPA).

This publication is one of more than 100 wellcare® information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the wellcare® Hotline at 1-888-395-1033 or visit www.wellcarehotline.org to fill out a contact form or chat with us live!

JOIN THE wellcare® WELL OWNERS NETWORK!

By joining the FREE wellcare® Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit www.wellcarehotline.org to join!