wellcare® information for you about

WELL COMPONENTS: YOUR WELL CASING

The well casing is a steel or plastic pipe that serves as the lining of your well. It keeps the well from caving in and protects ground water from contamination by surface water. The well casing is topped by a watertight well cap.

In the cable tool method of well drilling, the casing is installed as the drilling proceeds. In the rotary drilling method, the hole is oversized, so the casing pipe is set in the well after the full depth has been reached. In this case, the space between the hole and the outer walls of the well casing must be sealed with cement or clay grout to prevent surface water from seeping into the well.

If your well is drilled into loose sand and gravel, the casing must extend to the full depth of the well. The bottom end of the casing is fitted with a well screen to keep sand from entering the water supply. If your well is drilled into hard rock, the casing extends into the top of the rock, where it is sealed, usually with grout. Typically, screens are not needed in rock wells.

The most common materials used for well casing are carbon steel, galvanized steel, plastic (most commonly, but not exclusively, PVC), and stainless steel. Different geologic formations dictate what type of casing can be used. For example, parts of the country where hard rock lies underground are known strictly as "steel states".

The well casing and well cap should extend at least 12 inches above the ground. If your well is near a river or stream, it should extend at least higher than historic flood levels to prevent overflows from contaminating your drinking water.

Sample Water Well System 21 17 (14 (15 (13) Check Valve **Rope Insert Adapter** 3. Clamps 4. Heat Shrink Splice Kit Torque Arrester Safety Rope Cable Tie or Tape 7. Cable Guard This illustration is Pitless Adapter intended to represent 10. Male/Female Insert Adapter some of the components 11. Well Cap that can be included in a water well system and 12. Well Seal is not intended as an 13. Check Valve installation quide. 14. Tank Tee Check local codes for 15. Drain Valve actual requirements and 16. Nipple restrictions. 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

Protecting Your Well Casing

The well cap is your first line of defense to prevent pollutants from penetrating your drinking water system. Inspect your well cap regularly to make sure it is in good condition.

Take care when working or mowing around the wellhead, which is easy to damage with heavy equipment. Don't pile snow, leaves or other materials around the wellhead, where they potentially can carry pollutants into the system.

Finally, hire a licensed well contractor to perform any new well construction or modification, or to close an old well. A professional can ensure that the well casing and well cap are sanitary and secure. For a list of licensed well contractors in your area, use our <u>interactive map on our website</u>. If you need help locating a licensed well contractor, contact the <u>wellcare</u> Hotline at 1-888-395-1033.

For More Information on Well Casing

Contact your licensed well contractor, local health department, state environmental agency, or the wellcare® Hotline. The Water Systems Council's *Water Systems Handbook* provides technical information on well maintenance and service.



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!