

Is Water Pressure Getting You Down?

When you open the faucet in your home most of us take for granted that the water will flow out. Of course, this is really dependent upon the pressure that water is under. Water pressure is created by water forcing its way through the distribution system to your tap. Water pressure should generally be between 60 and 75 PSI inside your home. You can experience problems when your water pressure is higher or lower than this range. Too low or too high of water pressure can cause a variety of problems around your home.

There are several factors that can affect the water pressure in your home. The water pressure at your home depends on the elevation of your home and your proximity to the water storage tank, which serves your home. The closer your home is to the elevation of the storage tank serving you, the lower your pressure will be. Similarly, the lower your home is in relation to the storage tank, the higher your water pressure.

Water pressure can also vary at different times of the day. Pressure is normally higher late at night when very little water is being used and most people's taps are closed. In the morning, when everyone is running taps – or on a hot evening when many people are using garden hoses and sprinklers – the pressure in our water mains may be lower.

Also, many low-pressure problems are created in the home. In these cases, your home has adequate water pressure, but pressure at fixtures drops off when another fixture is turned on. This situation is most commonly encountered when someone flushes a toilet when another person is in the shower. Usually the problem is that the water volume is lowered, therefore reducing the amount of water that comes out of the fixture.

If you are experiencing unusually low water pressure throughout your entire home, below are some checks that can help your troubleshoot the problem.

- Has any plumbing work been done lately? If so, check all your main and shut-off valves to be sure they are wide-open.
- Do you have a pressure-reducing valve (PRV) installed? If so, it may be out of adjustment or need to be replaced. Incorrectly adjusting the regulator could cause water pressure that is too low or too high inside your home. It is highly recommended that you have a qualified plumber make any adjustments.
- Your home may have a PRV, but not actually need it. A PRV installed in a low pressure area will greatly restrict volume or flow.
- Water pressure loss can be caused by an undetected leak. Your water meter can help you detect a leak. Always call a plumber and get leaks fixed immediately!
- In older homes, water pressure problems also may be caused by calcium deposits that build up on the inside of your home's water pipes, with hot water lines more susceptible than cold. This is especially common in iron pipe. Plumbers can sometimes remove this kind of blockage by blowing high pressure air through the water lines. DO NOT try to do this yourself; inexperienced users often end up causing leaks in the pipes, which leads to piping replacement jobs costing thousands of dollars.
- Another problem, prevalent in older homes, is undersized water pipe. Homes built in an era when the typical house had only a single toilet and tub required a three-eighths inch diameter water pipe. Since then many households have added bathrooms, along with many more water using appliances. In these cases re-piping may be the only permanent solution to the home's water pressure problems.

- A frequent cause of low water pressure is a valve that was closed during routine servicing of a water softener or other water conditioning device. If you have a water softener and the servicing company has recently visited your home to replace the canister, check to see if the service person fully reopened the valve.
- Is there a water softener in your home? It may be malfunctioning or starting to 'bind-up.' Try bypassing it to see if flow is restored.
- Do you have a whole house filter? If so, check and/or replace the filter cartridge.

If you are experiencing low pressure at one fixture, consider the below factors:

- Has the fixture been repaired or replaced? New fixtures can be more restricted and may make it appear to be flowing slower than older fixtures.
- Mineral deposits from hard water can clog hose filters carrying water to your washer or the aerators on faucets or showerheads, resulting in lower water pressure. Mineral deposits are not harmful and can be easily removed by soaking the filter or part in vinegar periodically.
- If you have low pressure in your shower, the balancing or anti-scald valve may be malfunctioning and restricting flow. Also, some massage-type and hand-held showerheads may restrict and impede flow.

The opposite problem to low water pressure is of course, high water pressure. High water pressure is rough on pipes as well as water using appliances. Too high of pressure can lead to leaks in your pipes and cause your appliances to "burst" from the pressure, leading to potentially expensive damage to your home.

The symptoms of excessive water pressure in a home include; banging pipes, a leaking water heater, a stinging shower spray, running out of hot water quickly and faucets that leak again a few months after washers have been replaced.

If you live in a high pressure area and experience some of these symptoms, you may need a plumber to install a pressure reducer. If you have a pressure reducer and are experiencing problems, the pressure reducer may need repair. A pressure reducer might not be working properly if:

- You hear a loud or banging noise when fixtures are turned off.
- Water bursts out very strongly when fixtures are first turned on and then returns to normal.

Lastly, if you are experiencing high pressure at one fixture, consider installing low flow showerheads and/or faucets.

When dealing with too high or too low water pressure in your home, it's always best to consult a professional plumber to help not only diagnose your problem, but to come up with the best fix as well. Don't wait until it becomes a bigger problem – leaky faucet or burst pipe – and an even more expensive fix!

Sources: www.bayonet-inc.com
www.irwd.com
www.nwwater.com