Ways to Drain Your Home's Plumbing System

Reasons for Draining Plumbing Pipes

Although not a common task, draining your home's [plumbing pipes](https://www.thespruce.com/basic-types-of-plumbing-pipes-1822487) is occasionally necessary. Some common reasons for doing this include:

* Fixing a [water hammer problem](https://www.thespruce.com/water-hammer-arrester-2718694).
* Shutting down a seasonal property for the winter.
* To make major plumbing repairs, like replacing or extending the main [plumbing lines](https://www.thespruce.com/how-to-dig-a-sewer-trench-4129343).

Water Hammer

[Water hammer](https://www.thespruce.com/fix-water-hammer-pipes-4126485) (also called hydraulic shock) is a situation in which plumbing pipes bang loudly when faucets are turned on and off, or when an appliance suddenly starts or stops the flow of water. The problem occurs because of air in the plumbing lines, which allow the water to oscillate back and forth and bang the pipes against one another or against the wood framing. Even if your system has air chambers to absorb this shock, too much air trapped in the system will make the problem persist. The answer is to drain the system and refill it so the air gaps are confined to the designated air chambers.

Seasonal Shutdown

Draining the plumbing pipes is one of many items on a [winter preparation checklist](https://www.thespruce.com/easy-home-winterizing-checklist-1824721). These are especially important when a property in a cold climate will be left unattended for the winter since [frozen pipes](https://www.thespruce.com/preventing-and-thawing-frozen-water-pipe-1824905) that burst can fill an empty home with thousands of gallons of water and cause many thousands of dollars in damages.

Major Plumbing Repairs

Although draining the entire system is not part of every major repair or addition to the home plumbing system, it can sometimes be necessary, such as when a [basement bathroom](https://www.thespruce.com/install-a-basement-bathroom-4138566) is being installed, and the plumbing pipes lying above the installation need to be drained when the [new pipes are connected](https://www.thespruce.com/replace-copper-pipe-with-pex-1822509) to the existing system. There can be a substantial amount of water in the supply pipes within the home, and at the moment the pipes are cut in order to connect the new supply pipes, this water can flow out unless they have first been drained.

Draining your home's water supply pipes, and refilling them when the work is done, is a very easy process.

How to Drain the System

To drain the plumbing system, proceed as follows:

* + 1. [Shut off the main water valve](https://www.thespruce.com/where-to-shut-off-the-water-2718723) at the water meter.
    2. Starting at the top floor, open all the [sink faucets](https://www.thespruce.com/types-of-faucets-1824889). the will allow air into the system, which will help the flow of water as you drain the system.
    3. Go to the basement or the lowest level in your home, then open the faucet in your [laundry tub](https://www.thespruce.com/how-to-install-a-utility-sink-4148120) or lowest sink, and let all the water from the above floors drain out.
    4. Now go back upstairs or to the highest level in the home and open the tub/shower faucets.
    5. Flush all the toilets, emptying the tanks.
    6. If you are leaving the property unattended (such as when leaving a vacation home for the winter), leave the faucets in an open position.
    7. There should be no water coming out of any faucets, except a possible slight residual drip from the lowest faucet as any remaining water in the pipes dribbles out. You're done!

Safety Tip: When a home is left unattended for a long period, standing water in toilets, sink and tub [drain traps](https://www.thespruce.com/the-purpose-of-a-drain-trap-2718770) and floor drains can evaporate, removing the drain seal that keeps sewer gases from rising up into the home. Some experts recommend blocking drains and toilet bowls with wadded-up cloths or plastic wrap to keep the sewer system sealed off from the house during long absences.

Charging With Water

To activate the plumbing system and refill it with water, proceed as follows:

* 1. Close the basement faucet or lowest level faucet in the house.
  2. Now close all the upper faucets. Closing the faucets allows air to remain in the pipes to recharge the air chambers you may have in your home's plumbing system.
  3. Go back and open the main water valve to let the water back into your pipes.
  4. Now, one by one, starting with the highest level faucets, turn on the faucets and let the air/water sputter out until only clear water flows from the faucet. You may see [discolored water](https://www.thespruce.com/improve-water-quality-in-your-home-4153137) come out at first, but this is normal.
  5. Open the shower faucets.
  6. [Flush the toilets](https://www.thespruce.com/repairing-common-toilet-problems-1824906) to refill the tanks.
  7. Once the water is running clear, turn off the faucets starting at the highest floor level and work your way down through the house. You may have an occasional sputter the next time you use a faucet, but any remaining air will quickly be purged.

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