



## Avoid Frozen Pipes

If you live in the Hudson Valley and worry that your pipes might freeze during the winter this article may offer some avenues for your peace-of-mind.

Mike Berardi of Kosco, the area's leading home heating and comfort company offers peace-of-mind by installing a simple home temperature monitor. If your home was to drop below the set temperature Kosco will automatically be notified and a service technician will come out to protect your home and regain heat. Berardi also recommends that your heating system is periodically maintained to reduce breakdowns and loss of heat due to furnace failure.

The conditions that cause pipes to freeze and break in cold weather are often confused by most homeowners. Here is what the experts have discovered during their research.

Because water expands as it freezes, it had seemed obvious that frozen pipes crack from the force of the ice pushing out against the brittle metal or plastic. Yet the researchers noticed that broken sections of pipe were often free of ice. So they probed further. Eventually, they figured out that the ice doesn't cause the damage directly. As the ice expands, it fills a longer section of the pipe. That reduces space left for water backed up in it, so the water pressure increases. That's what actually breaks the pipe, explaining why the crack may be far from where the ice forms. A simple valve, they found, could relieve the water pressure enough to eliminate the risk of broken pipes.

Research also found that pipes don't usually burst until the outdoor temperature drops below 20 degrees Fahrenheit (not 32, as might be expected) and that wind chill does affect plumbing. Pipes in drafty locations are much more vulnerable to freezing than those in well-sealed spaces, even if the temperatures are identical.

Insulating drafty areas where pipes run will have a significant impact towards protecting your pipes from freezing. Unfortunately some pipes are not reachable or run through closed walls and are subject to freezing. In this case, some homeowners use a simple method of protecting pipes from freezing. By leaving faucets at the end of plumbing runs turned on just enough to barely drip. The slightly open valve will keep water pressure from building, even if ice forms. In some houses, pipes run through exterior walls where there is very little space for insulation between the outside and the pipe. If you suspect this may be the case in your house, you might want to leave a slight drip whenever temperatures are likely to drop below 20, even if you are home.

With regards to your outdoor faucets, most older homes have a shut off valve in the basement which needs to be turned off in the winter, this will then allow you to open the outdoor faucet so water can drain and is not trapped in the pipe where it can freeze and cause damage. Newer "frost proof" outdoor faucet models extend the shut off valve to inside your warm home where the water in your pipe will not freeze. The nice thing about this style faucet is that you can run your outdoor faucet all year round without worrying about turning off a second valve in the basement.

If the house isn't in use during the coldest months, drain the plumbing system before closing the house down. A drained system is the only foolproof way to avoid a freeze-up.



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