

## **Home Improvement Corner**

*What's the worst that could happen to your home this winter?*

During the winter of 2008, our community endured one of the most disruptive storm seasons in over a decade. This winter, a La Nina pattern is expected to produce colder and wetter conditions than normal. We know what this weather pattern means to our daily commute, but do we consider what it could mean to our home?

Perhaps the most common threat is frozen pipes. Residential plumbing supply lines commonly freeze when exposed. Because water expands when it freezes, pipes and fittings can crack. If the cracked pipes go unnoticed until thawed, they will most certainly cause a spurting leak. Prevention is as simple as making sure all the exposed pipes in your home are insulated. Most outside hose bibs are self-draining after the hose is removed. It's a good idea to cover them, preventing exposure to freezing temperatures.

At our latitude, the depth ground freezes is up to 10 inches. Ground heave is why the building code requires foundations be poured 18-inches below finished grade. A combination of wet weather followed by freezing temperatures will heave the surface, potentially causing structural stresses in patios, driveways, deck footings and other surface structures. Freeze, thaw cycles are notorious for expanding cracks over time.

Icicles on roof eaves is a good indicator that freeze-thaw cycles are occurring. As the snow melts, it also becomes less stable and can slide off the roof unexpectedly, causing damage to gutters, windows and attached structures like decks, arbors and trellises. It's wise to identify potential hazards and tend to them accordingly. Depending on the conditions, ice can cause collapse to tree branches and other structures.

Of course, if it's that cold outside, the doors and windows will certainly be kept closed at all times. Depending on your home's heating system, the air quality could decline. Air quality is measured in terms of how frequently the volume of air inside the home exchanges completely over time. Higher rates of exchange equate to higher indoor air quality.

In most homes, the primary heat source is a gas or electric forced-air furnace. Typical systems draw from the cold-air return ducting, through the furnace and to the heat registers. Outside air is rarely introduced to the system, unless ducted through a heat exchanger, which pre-heats the air before cycling into the building.

In the event of a power outage, the furnace will not work. Even radiant heat systems require power for the pump to circulate water heated by the boiler. A small generator can be an effective way to power a furnace, as long as the exhaust is not able to be drawn into the home. Automatic backup power systems can be designed to power critical circuits or an entire home, depending on the needs and budget.

Now that leaves have fallen, this is a perfect time to get all the gutters and downspouts cleaned. Rainwater and snowmelt will cause less problems if they are able to flow freely. For additional seasonal tips, visit the Consumer Resources pages of my website or keep an eye out for this column.

*Michael Tenhulzen, CGR, CAPS  
Tenhulzen Residential, Bellevue, WA  
(425) 885-9871 [www.tenhulzen.com](http://www.tenhulzen.com)*