

ROOFING CONCERNS

FOR FALL & WINTER

The transition from summer to fall brings colorful leaves, visits to the apple orchard, Halloween, and pumpkin spice lattes. It's also the time of year when the leaves begin to fall, the moderate temperatures start to plummet, and the rain turns to ice and snow that can damage unprepared homes. Homeowners should address several potential problem areas to assure they are in good condition and prepared to take on the seasonal changes.

In this guide, we'll talk about:

AREAS OF YOUR HOME TO INSPECT

- Your Gutters
- Indoor Humidity
 - Unregulated Humidity Levels Attic Condensation Ice Dams
- Insulation & Ventilation Systems

Air Leaks Insufficient Insulation Improper Ventilation

Replacing Your Roof

AREAS OF YOUR HOME TO INSPECT

GUTTERS INDOOR HUMIDITY INSULATION VENTILATION SYSTEMS ROOF

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Your Gutters

Gutters may seem like a minor part of the home, but they have a very important job; they protect your home and its foundation from water damage. Gutters catch rainwater as it runs off the roof and channels it away from the home to a drainage point, leaving your home's foundation stable. Without gutters and downspouts, your property would be in bad shape. You would soon begin to experience problems like water stains, siding damage, leaks, and flooding.

To work effectively, gutters need regular maintenance. This fall, remember to thoroughly clean out your gutters to keep them from getting clogged with leaves and debris. When your gutters are clogged, water can't flow freely, so it spills over the edge of your gutters. From there, it can drip down the siding, where it often causes chips and stains, and leak into your home around the foundation. Water that infiltrates your home due to clogged gutters creates an environment for mold, mildew, and rot to thrive. Clogged gutters containing standing water are also a breeding ground for insects like flies and mosquitos.

Another way clogged gutters can damage your property is simply by excessive weight. Heavy debris, snow, or ice can make a gutter crack or break apart from the roof, damaging anything in its path as it falls to the ground. Preventive maintenance is key when it comes to your gutters. If you're unable to clean your gutters yourself, hire a professional to do it for you. Gutter covers are available as well and could save you money and time on repairs and maintenance. Save yourself from all of these nasty problems by keeping your gutters and downspouts clean and positioned correctly.

Indoor Humidity

When fall rolls around, the air begins to get cooler and drier. You may start to experience dry skin and eyes or congestion. Your natural instinct may be to go out and purchase a humidifier for your home. Be sure you don't add too much humidity to the air, however, or you may run into bigger problems than dry skin.

Unregulated Humidity Levels

According to the EPA, you should try to keep your indoor humidity level in the 30–50% range. This may need to be even lower if the outside air is extremely cold. If the relative humidity indoors is too low, you may feel less comfortable in your home and be more susceptible to sickness; many viruses can survive longer in dry environments. Dry air can also have an effect on wood furniture and floors, causing them to contract, creak, and even crack or split under extreme conditions. On the other hand, if the relative humidity level is too high, you could run into other very serious and costly issues that we will cover next.

Attic Condensation

Many homeowners think they have a roof leak during the winter when the real issue isn't a hole in the roof, but excess moisture inside the home. Warm air rises up to the top of the house, and if you don't have sufficient insulation in place, this air can seep into the attic. After warm, moist air reaches the attic, it will then "sweat" as it cools off. This sweat has another name: condensation. When the humid air condenses in the attic, it can leak back down into the house and make it appear as though your roof is leaking. Sometimes the water that condenses out of the air turns to frost instead of water and then melts and leaks back into the house on a warmer day.

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Ice Dams

You've surely seen icicles lined up along the eaves of a house before, maybe even on your own house. This is a sign of an ice dam problem. Ice dams are formed when snow melts on a roof, water flows to the roof's edge, and then it refreezes at the eaves before it can run off onto the ground. The edge of the roof eventually becomes a thick ridge of ice as this process of melting and refreezing repeats itself. The ridge becomes a blockage, or dam, that can cause a plethora of problems for homeowners, such as water leaking into the home and ruining siding, drywall, and insulation. The invading water can lead to mold and rot as well as cause health problems due to poor indoor air quality.

The best way to deal with ice dam problems is by preventing them before they start. Ice dams form when temperatures across the roof's surface are inconsistent. **Ice dams form on the roof for the same reason condensation forms in the attic: warm air rises up from the space below.** This warm air in the attic creates warm patches on the roof that melt the snow. The solution? Keep the temperatures consistent across your roof. How do you keep these temperatures consistent? Deal with your attic's ventilation system, insulation, and any air leaks in the attic floor, as we will discuss below.

A quicker, easier solution to ice dam issues is to install heat cables on your roof. Take note, however, that heat cables don't address the source of the problem; so they don't prevent ice dams from forming indefinitely. They temporarily cover up the problem by melting some of the snow and ice on the roof in certain areas and then create routes to channel water off the roof, minimizing ice formation and buildup.



Insulation and Ventilation Systems

Air Leaks

Before you add insulation, it's very important to seal any air leaks in the attic. The warm air your furnace pumps out to keep you warm naturally rises to the top of your house. Leaks can allow this air to pass into the attic and escape out the roof. This can easily leave your home uncomfortable and drafty as well as lead to the array of other problems addressed above. Find and seal air leaks, and then move onto adding insulation if necessary.

Insufficient Insulation

According to the **U.S. Department of Energy**, heating and cooling account for nearly 50% of an average home's total energy consumption, making it the largest energy expense in most homes. While you should insulate sufficiently throughout your entire home, **the most important place to make sure you have good insulation is in the attic**. Fortunately, the attic is usually one of the easiest places to replace old insulation or add more. Without good insulation, you'll end up paying a lot more than necessary in energy bills to keep your home comfortably cool in the summer and warm in the winter.

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Insufficient Insulation (cont.)

To determine your insulation's condition and whether you need to replace or add to it, go up into your attic and take a look, if possible.* According to **Energy Star**, if it's level with or lower than the floor joists, you don't have enough. If the joists are fully covered, you may be set. Measure the thickness in inches. Energy Star recommends a thickness of 10–14 inches, depending on the type. This is equivalent to an R-value (a material's resistance to heat flow) of R-38. R-value is determined by the insulation's density, thickness, and composition.

Another thing to check is how evenly the insulation is distributed throughout the attic. Are there gaps or bare areas? It's common for homes to have a lot of insulation in the center of the attic with too little around the corners and at the eaves. If you aren't sure whether your insulation is sufficiently distributed, contact your contractor for a professional evaluation.

Improper Ventilation

Your ventilation system's job is to get rid of any heat or humidity that sneaks into the attic to help prevent condensation, ice dams, and other moisture-related problems. A quality attic ventilation system should replace warm, humid air in the attic with cool, dry air from outside, equalizing the indoor and outdoor temperatures.

*Some insulation contains asbestos. If you know that yours does, do not go into your attic, or you will expose yourself to harmful materials. If you don't know if your insulation contains asbestos or not, have your attic tested by a professional.



Replacing Your Roof

The time you replace your roof is a great time to also install new gutters and have your roofing contractor take a close look at your current ventilation system and the condition of your attic's insulation.

Take care of many of the issues discussed previously with a well-designed roof installed by an experienced roofing contractor who can inspect all of the areas needed to keep your home healthy and comfortable. Your home should be viewed as a whole, with many individual components working together as one integrated system.

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CONTACT US!

If you need a roof repair, a new roof, a proper ventilation system, or additional insulation in your attic, contact Hedrick Construction. To have a repair or an installation done in the spring, book your appointment now to beat the spring rush!

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