



# The Lurking Enemies of Your Roof

## Who are the enemies?

- **Sun**  
Heat and ultraviolet rays cause roofing materials to deteriorate over time.
- **Rain**  
When water gets underneath the shingles, shakes or other roofing materials, it can work its way to the deck and cause the roof structure to rot. And, the extra moisture encourages mildew and rot elsewhere in the house, including damaged walls, ceilings, insulation and even the electrical system.
- **Wind**  
High winds can lift the edges of shingles (or other roofing materials) and force water-and debris underneath them. Very high winds can do extensive damage.
- **Snow and Ice**  
Melting snow often refreezes at the roof's overhang (where the surface is cooler), forming an ice dam and blocking proper drainage into the gutter. Instead, the water backs up under the shingles and seeps into the interior. In the early melt stages, gutters and downspouts can be the first to fill with ice and be damaged beyond repair or torn off the house.
- **Moss and Algae**  
Moss can grow on wood shingles and shakes if they are kept moist by poor sunlight conditions or bad drainage. Once it grows, moss holds even more moisture to the roof surface, causing rot, and its roots actually work their way into the wood. Algae also grows in damp, shaded areas on asphalt shingle roofs. Besides creating an ugly black-green stain, it can retain moisture, causing rot and deterioration. Trees and bushes should be trimmed away from the house to eliminate damp, shaded areas, and gutters should be kept clean to ensure good drainage.

➤ **Tree and Leaves**

Tree branches touching the roof will scratch and gouge the roof material as they are blown back and forth by the wind. Falling branches from overhanging trees can damage-or even puncture-shingles and other roof materials. Leaves on the roof surface retain moisture and cause rot, and leaves in the gutters block drainage.

➤ **Missing or torn Shingles**

The key to a roof's effectiveness is complete protection. When shingles are missing or torn off, the roof structure and the interior of the home are vulnerable to water damage and rot. And, the problem is likely to spread-nearby shingles are easily ripped or blown away. Missing or torn shingles should be replaced as soon as possible.

➤ **Shingles Deterioration**

When shingles get old and worn out, they curl, split and lose their waterproofing effectiveness. And, weakened shingles are easily blown off, torn or lifted by wind gusts. The end result is structural rot and interior damage. A deteriorated roof only gets worse with time and it should be replaced as soon as possible.

➤ **Flashing Deterioration**

Many apparent roof leaks are really flashing leaks. Without good, tight flashings around chimneys, vents, skylights and wall/roof junctions, water can sneak into the insulation and cause damage to walls, ceilings, insulation and even the electrical system.

➤ **Condensation**

Condensation can result from the build-up of relatively warm moisture-laden air. Moisture in a poorly ventilated attic promotes decay of the wood decking and rafters, possibly destroying the roof structure. The solution may be to increase attic ventilation through the use of larger or additional vents, so that the attic air temperature will be closer to the outside air temperature.

➤ **The importance of ventilation**

When a house has been properly ventilated, a positive airflow is created which allows the house to breathe and helps prevent moisture build-up. That's why proper attic ventilation is a serious issue that should always be considered when re-roofing your home.

Excess moisture in the home causes mildew and drywall damage. Moisture problems can cause paint to peel and siding to warp.

Balanced airflow keeps attic temperatures from reaching extremes. Vents allow outside air to move through the attic. The result is a cooler, drier attic, which means a longer lasting roof.

➤ **What's the solution to gain proper ventilation?**

Ridge vents, when used with proper under eave vents, are the most efficient form of roof ventilation because they allow uniform escape of warm, moist air from attic space.