

Ice Damming

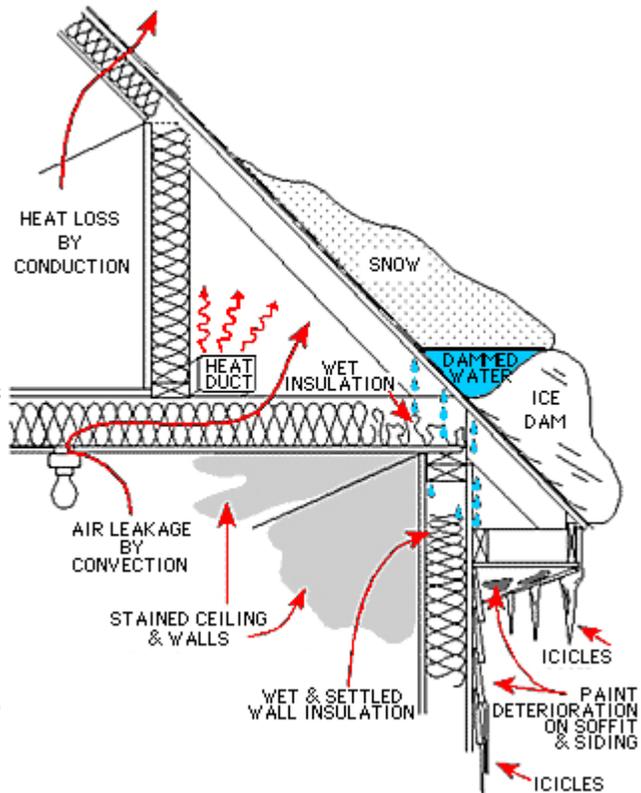
What is "ice dam" and what causes it?

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Ice damming occurs when melting snow runs down the surface of a roof and re-freezes. As run-off re-freezes, the ice builds up and begins to dam the subsequent run-off, causing it to pool. Unfortunately, shingles are designed to shed water with the help of gravity and they don't perform well against the standing water. Some of the pooled water finds its way under shingles to hidden seams and fastener holes. Some of it re-freezes under the tabs and lifts the shingles, literally opening a floodgate.

The phenomenon is caused by warm air in the attic space, heating the undersurface of the roof deck, melting snow. Run-off makes its way down the slope of the roof and eventually comes in contact with the deck over the eaves -- which is not exposed to the heat from the attic. It is here the ice begins to form. A heavy freezing rain can also trigger this cycle even when snow is not present.

Additionally, water that reaches the gutters may freeze before the draining at the drop outlet. This is especially likely to happen if the gutters and downspouts are full of debris.



What are the warning signs?

Aside from leaks, stains, and damaged ceilings or walls, there are several tell-tale signs that ice dams have occurred or may be imminent:

- Large icicles hanging from the gutters during cold-snaps following snow storms are an indication that internal heat is melting the snow from beneath the roof deck. This is especially so if the icicles form on the north, where the sun is a stranger.
- A thick blanket of snow down slope of bare shingles points toward trouble. This is especially indicative of trouble if on the north side or during a period of overcast skies.
- Water dripping from the soffit panel is a hint that a dam has already formed. Stains, peeling paint, or soft spots on the soffits are something to look for year 'round.

The industrious might try measuring the temperature in the attic on a cold winter night: if it is above freezing, the potential for ice damming is strong.

Why Does My Roof Not Keep The Water Out?

Shingle roof systems are designed to channel water from the high points of the roof to the lower sections where it should exit the roof either into a gutter system or simply onto the ground. Shingle roof systems are not designed to hold water or prevent water from entering that runs or is blown uphill.

Ice dam related leaks are caused simply because the water could not escape from the shingled roof area. This is not a design flaw with the roofing system or an indication of a poorly installed roof. Ice dams are winter storm conditions, which prevent the shingle roof system from shedding water as designed.

What Do I Do When An Ice Dam Happens?

The only corrective action that can be taken is to remove the barrier of ice at the gutter line or to remove the ice build-up on the roof area before it melts from underneath. It must be noted that working on a roof under these conditions is *extremely dangerous*. The risk of injury should always be weighed against the cost of water damage repair.

Also, in removing ice from the gutter and roof, you may cause damage to these areas that will require professional repair. Again, the cost of water damage repair may be less than the cost of a roof or gutter repair.

Experts recommend taking action to avoid water damage, but caution against damaging your property even more than that caused by the ice itself. They recommend the following tips:

- Use a roof rake to remove snow buildup from the roof. **DO NOT USE A ROOF RAKE NEAR ANY ELECTRICAL WIRING!**
- Remove ice buildup around gutters by melting the ice. Calcium chloride is a commonly used material. For added effectiveness, put the melting agent inside a pair of panty hose. This will release the melting agent gradually, extending the melting process, allowing the water to drip harmlessly to the ground.
- After applying a melting agent, if you must chip the ice, do so very carefully. NEVER strike your roof with an axe, hammer, or anything that will damage the shingles.
- Use extreme caution on ladders and roof surfaces. Many serious injuries occur to people who fall while trying to clear ice and snow from roof surfaces. Hire an insured contractor if you are uncertain.

Who Is Responsible For Ice Dams And The Resulting Leaks?

Ice dams are the result of winter storm conditions. Because they are storm related, and not a roof flaw, damage caused by water is not covered by the homebuilder, shingle manufacturers or roofing company warranty. Remember, roofs are designed to shed water to the ground.

The final responsibility remains with the homeowner when re-roofing to weigh the cost of prevention and protection products against the possible cost of damage if an ice dam leak occurs.

Roof Vents

Your home has been provided with vents to control attic moisture and temperature levels. However, during certain snow storms, snow may be blown into the attic creating extensive damage. Homeowner's should check their attics after every unusually heavy snow storm. It is the homeowner's responsibility to remove any snow before melting occurs. At no time should attic vents be obstructed or reduced in size.

To hire a pro to do this for you, call New England Build & Restore M-F 8-4pm 781-826-7212 ext. 15 to speak with Donna Kelly or email DKelly@neAbr.com.

All information was taken from multiple sources to act as a guide only.