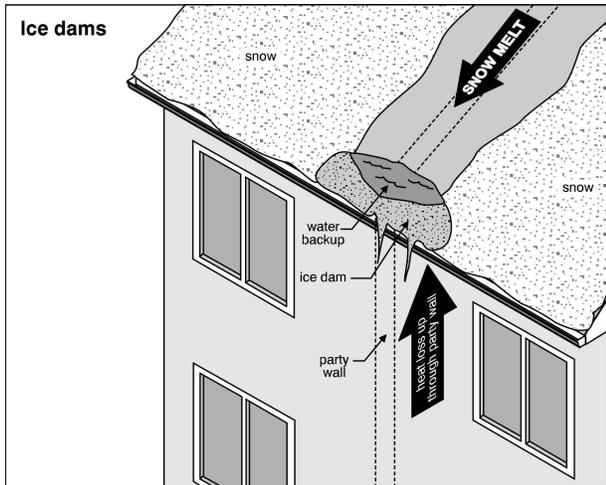


## “Quick Tips”

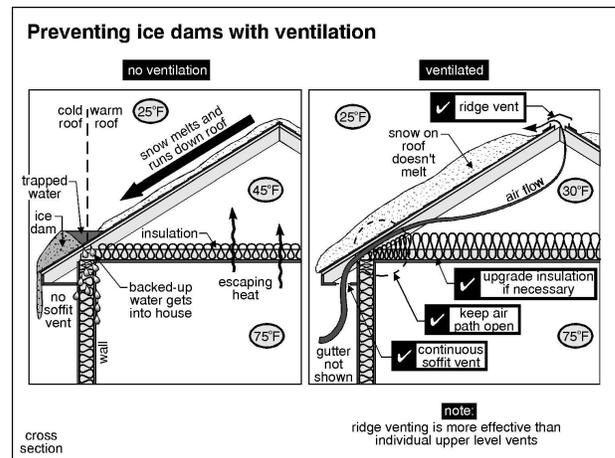
### Ice Damming

**What is ice damming?** An ice dam is a ridge of ice which typically develops near the edge of a roof and prevents melting snow from draining off the roof. When water from melting snow runs down a roof and gets trapped against a thick layer of snow and ice near the edge, it can start backing up. As it pools or ‘dams’, it begins to force its way underneath the shingles and up against the sheathing (plywood or strand board) underneath, saturating it. Sheathing is not waterproof and the water will soak through it, or find other access, to begin entering the attic and start damaging interior ceilings and walls.



**What causes ice damming?** Non-uniform roof surface temperatures cause ice dams. This is another way saying that part of the roof is getting warmed when the section below it is staying cold. The warm spots occur due to heat that comes from the house. The heat can move through the ceiling and insulation, or if there are cracks or openings in the ceiling, the warm air from the house will rise into the attic space and heat the roof as well.

**How do I know if I have damage from ice damming?** An examination of the sheathing from inside the attic is one of the best ways to tell if ice damming has been occurring. A sure indicator is blackened, water-damaged, mildew-stained roof sheathing near the eaves. Other indications may include water-stained or damaged ceilings and walls; damp or compressed insulation in the attic near the exterior walls.



**How can I prevent ice damming?** The most common causes of ice damming are a combination of inadequate insulation and inadequate ventilation in the attic. Think of the roof simply as an umbrella over the home. It is not intended to keep the house warm, only dry.

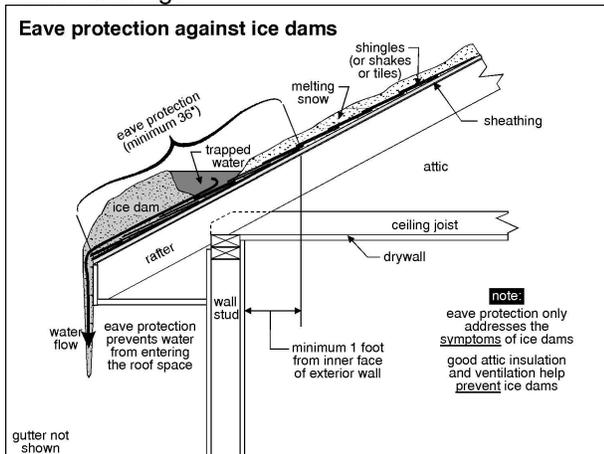
Increasing the level of insulation in the attic is an inexpensive and relatively easy task for most homeowners. Ask your building supply professionals for tips on installation. Ensuring that the eaves have adequate ventilation will also help reduce ice damming. Be careful not to cover up eave and soffits ventilation when adding additional insulation.

**What can I do if I have ice damming taking place right now?**

You can take limited steps to keep ice dams at bay if they develop during the winter. In an emergency situation, to stop water from continuing to flow into the house structure, make channels through the ice dam. The ice dam can even be removed from the house but this places the roof and the remover at tremendous risk.

Hardware stores sell roof rakes to help remove snow from the edges of roofs. Be careful using a roof rake since it can easily damage the shingles beneath the snow.

In some instances, homeowners have even removed their gutters in the area of the ice damming as an emergency measure to promote easier drainage.



**Important:**

Long-term damage from ice damming will result in decayed sheathing in need of replacement. Repeated water-damage will also deteriorate the rafters, eaves, soffits and fascia boards. Moist and decaying wood in the attic area attracts insect pests

and provides an environment where mold and mildew can flourish.

**The secret life of Home Inspectors:**

There are several at-a-glance indicators that tip off a home inspector before he or she even steps inside the home that ice damming may be a problem. These include:

- ❖ Icicles forming at the edge of a roof
- ❖ Gutters missing from one area of the home
- ❖ Disproportionate snow coverage or bare spots on the roof
- ❖ Lack of or minimal roof ventilation
- ❖ Areas on the roof where a change in shingle color suggests repair
- ❖ Presence of heater wires installed on the roof
- ❖ Water-stained siding under eaves or soffits

According to specialists at the University of Minnesota, a combined short- and long-term approach can help minimize damage and frequency of ice damming. It is more important for you to prepare for future years by hitting ice dams at their source. Controlling the heat loss from the home into the attic is the best way to prevent ice dams.

A couple of days after the next significant snow fall, take a ride around your neighborhood and see how the snow cover on your roof compares to that of your neighbors. All things being equal, the roofs with the most snow remaining on them probably have the best-insulated attics.

The material listed herein contains information and recommendations readily available from government and other industry sources. The *Quick Tips* series are provided for the benefit and use of American Home Inspection clients and are intended to be a set of guidelines designed to explain and illuminate certain problem types or situations. *Quick Tips* are not intended to be used as a specific prescription for remediation. Consultation with a qualified specialist is advised before embarking on any specific course of action.