

Formation of Ice Dams

It's that time of year again with plenty of snow and ice in the northern climates. It is also this time of year that home owners have to deal with the formation of **ice dams** and the damage and hazards that ice dams create.

Ice dams are caused by **snow melting** down the roof and flowing over the eave and on to the gutter. The lack of heat under the eave, and the cold metal of the gutter, refreezes the snow melt. The ice builds up in layers until it becomes a dam, trapping water on the warm part of the roof that doesn't freeze.

Ice melts from the bottom and the water is hidden under a snow pack under the roof. Awareness of the problem occurs too late when ice gets under the roof shingles, creates an opening, and causes leaks in the ceiling. Ice dams cause damaged soffit and fascia, sagging gutters, torn shingles, and peeling paint from wood or fiber cement siding.

Falling **icicles** is an issue as well. A block of falling ice can do considerable damage to objects or people below.

Walk ways become hazardous with snow melt coming off of the ice dam and refreezing on the side walk or driveway.

The effects of ice damming can be minimized by use of **snow guards**, proper roof ventilation, addition of attic insulation, and some sort of **deicing** in the gutters and on the roof.

Additional Resources

The Hazards of Ice in the Gutters
The Failure of the Cold Roof Concept