

## Ice Dams

During our brutally cold winter months, a drive down virtually any street in our neighborhoods, and you will likely see **ICE DAMS**.

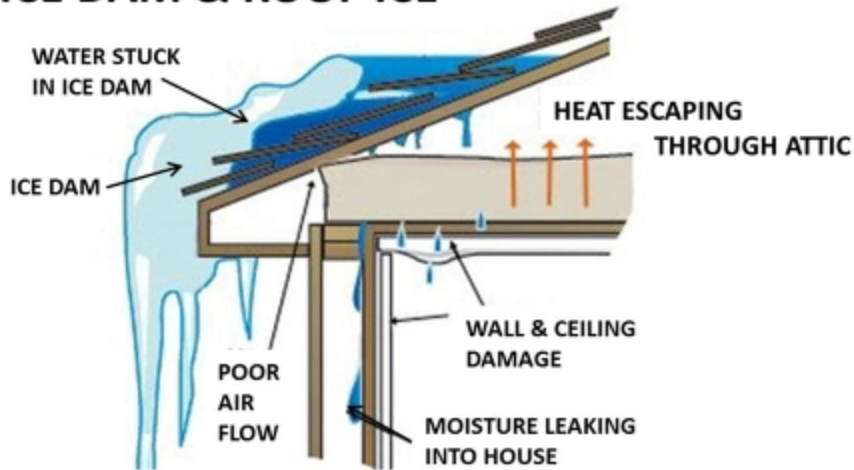
Ice Dams are caused by energy loss and make no mistake about it. The heat inside the home is escaping into your attic and causing snow to melt from your roof. As soon as this melt comes to the eave or past the wall top plate and beyond the threshold of the warmer home, it begins to refreeze. As this continues day by day, the accumulation gets bigger and bigger. This cycle repeats itself over and over and is usually an indicator a **thermal envelope** deficiency.



Ice Dams cause extreme stress on the gutters, fascia, and even the framing supports for eaves or overhangs. In addition and probably the most severe problem created by these masses of ice is when melting ice turns to water and is able to get up and under the protection of the roof underlayment and damages the structure and interior of the home or building. Once the roof protection has been compromised, moisture has now entered your home where it causes mold and mildew and rot. For years this REAL damage can remain hidden. It's only when roof is replaced or interior structural or cosmetic problems begin to arise that the real damage is noticed. By that time, there can be literally tens of thousands of dollars in damage.

In many cases, the peeling paint, interior trim damage, 'cupped' hardwoods or odors are eventually identified.

## ICE DAM & ROOF ICE



There are **only two real** ways to make these problems go away for good. You can either turn your heat off inside your home in the winter, which is impossible, or **correct the insulation problem with your home's thermal envelope which is allowing conditioned air to enter your attic and causing snow melt.**

In other words, solve your insulation problem and you solve your ice damn. You may also say that if you solve your ice damn problem, you also increase your home's efficiency as a consequence.

Some believe that increasing your ventilation in your roof can solve this. Our response to that would be that this can help, but ventilation cannot solve the problem, it's only going to let your conditioned air escape faster. In other words, it will let your money escape faster! I will tell you that this is simply a band aid and does not deal with the real underlying problem which is heat-energy loss.



Please keep mindful also that if you have ice dams, not only is it an indication of your winter time heat loss, but it is also telling you that these same deficiencies are causing summer time conditioned air to escape as well. Only in the warmer months, you have no VISUAL evidence except when you open and review your utility bill.

Keeping your conditioned air (whether it is HEAT for the winter or COLD in the summer) inside your home's '**thermal envelope**' is the key to having a properly performing home. A properly performing home means the home will be more efficient, comfortable, and healthier.

There is no better way to accomplish this than using an air-impermeable insulation that stops the transfer of heat-energy and seals structure when applied. Spray Foam insulation in any one of its densities can accomplish this for you as well as a host of other things. Spray Foam Insulation is the choice of Building Science Professionals and is generally accepted to be the most effective insulation material currently available.