

Is My Roof Leaking? Do Stains on Your Ceiling or Drips From a Bathroom Vent Mean Your Roof Is Leaking? (Maybe not) - Your roof may not be the problem. It could be . . .

CONDENSATION IN YOUR ATTIC OR IN YOUR HOME

During the winter especially around January and February in Calgary, temperatures can change radically in a short periods of time. When we get a cold snap in the winter - we tend to turn up the furnace. When warm weather follows quickly after a severe cold snap and it warms up, like a Chinook, homeowners will often call us to report that their roof has suddenly started leaking, or their bathroom vent is leaking, or that water has been collecting in their light fixtures. If you have encountered similar issues or have noticed your windows are freezing up and melting or brown stains forming on your ceiling it may not be your roof that is the problem. Condensation results and then quickly freezes, the frost or icicles melt and the water drips down through any gap it finds in the attic vapour barrier or at the windows. If there are gaps or tears in the vapour barrier below the insulation in your attic the heat from our homes can escape into the attic and hit the underside of the freezing cold roof deck. Often those gaps or holes can be found around vents or the wiring for light fixtures. If the leaking is by, or from, your bathroom (or kitchen) fan it may be that condensation has formed inside the vent pipe for your exhaust fan and frosted up. When it warms up, the frost that has formed inside your vent pipe will melt and pour down into your bathroom or kitchen.

How to tell if your roof is really leaking - What to look for:

- Look for something like a trapdoor in the ceiling of the uppermost storey of your home.
- Get a ladder and a flashlight and set up the ladder so that you can safely reach the trap door (be sure to take your flashlight with you).
- Climb the ladder and carefully lift and move the trapdoor (usually a light plywood panel).
- Poke your head up into your attic and using your flashlight, examine the underside of the roof (a.k.a the roof deck) as well as the vapour barrier (usually clear plastic) under the insulation in your attic.
- Check for frost or icicles on the underside of the roof or signs of melting, including puddles of water on the vapour barrier under the insulation in your attic. If you see any of those signs then the problem may not be your roof but improper attic ventilation or attic insulation.
- Check your exterior, clean your eave-troughs annually and direct your downspouts area from your house.

CHECK LIST for reducing condensation in your home - What to look for:

- Check your soffits to make sure they are not plugged with insulation.
- Check the vapour barrier around vents and lights in your attic to make sure that it is properly sealed. You may need to add some extra insulation around them as well.
- Check that the exhaust hose pipe is connected to the bottom of the vent at the attic and check the formation of the hose, the exhaust hose pipe should be in a 'S' shape downward formation.
- Check and make sure the vapour barrier is properly sealed around the vents in your attic or if you see daylight at the area. You may need to add some insulation in the attic around the areas where the vents come through the ceiling.
- Check the internal humidity of your house. Have your furnace and humidifier set properly. You should have the correct relative humidity levels in your house. If humidity in your home is low, and you are getting zapped, you likely have inadequate humidity and to avoid condensation you must adjust the humidity down as the outside temperature falls to avoid indoor "rain" on your windows and elsewhere you may not see. Use this relative humidity chart to keep you comfortable inside your home as the temperature changes.

Outside Temperature	-10 F	0 F	10 F	20 F	30 F
Recommended Indoor Relative Humidity	20%	25%	30%	35%	35%

Your knowledge of the situation can help us find the best solution more quickly. You may never prevent the problem altogether - weather conditions are unpredictable - but you can certainly minimize the problem.