

WHY IT MIGHT NOT BE A LEAK

In Minnesota, we experience dramatic changes in temperature over a short period of time. It is not unheard of to go from the high 30s to sub-zero in less than a day!

When that happens, warm air from inside your house rises into your attic, comes into contact with cold surfaces, and the water in the warm air freezes, creating frost. Once it warms up again, the frost melts, and you end up with a puddle of water that mimics a leak.

Modern roofs are installed with tighter materials and techniques that help improve energy efficiency. This is beneficial for insulating your home, but it can reduce natural airflow and trap moisture in your attic. Heat escaping through your roof can also melt snow, which runs down to colder edges and freezes again, causing ice dams. This water can be forced back up under shingles, creating moisture that looks just like a leak.

WHAT SHOULD I LOOK FOR?

It's best to catch these problems early to avoid extensive damage. Be on the lookout for:

- Visible frost or Water stains on attic ceilings or rafters.
- Mold or musty smells caused by trapped moisture
- Rust stains on nails, or other metal components in your attic.

HOW DO I FIX IT?

Here are some steps you can take as a homeowner:

Improve Attic Ventilation

Ensure intake and exhaust vents are unblocked, and consider adding ridge vents, soffit vents, or attic fans to keep air moving.

Insulate Effectively

Seal attic floors to prevent warm air from rising and use insulation to maintain consistent attic temperatures (ideally no more than 15° warmer than outside).

Control Indoor Humidity

Keep indoor humidity between 30%-50% with humidistats or dehumidifiers.



The Role of Rapid Temperature Changes

- Temperature fluctuations cause **moisture imbalance** in the attic, leading to condensation or frost formation.
- Poor insulation and inadequate ventilation allow warm, moist air to escape into the attic, which can make the problem worse.

