

# Ice Dams at Churches:

## WHAT TO KNOW AND HOW TO PREVENT THEM



Church buildings—especially older ones with large attics and steep roofs—are prone to ice dams, which can cause leaks, structural damage, and safety hazards.

### What is an Ice Dam?

An ice dam is a ridge of ice at the roof edge caused by:

1. Snow on the roof
2. Warm indoor air is heating the roof from underneath
3. Melted snow running downward
4. Water refreezing at the cold roof edge

This traps water, which then backs up under shingles and leaks inside.

### Churches are higher risk because they often have:

- Large, poorly insulated attics
- Older construction
- Complex rooflines that hold snow

### How to Spot an Ice Dam

Look for:

- **Thick ice** along roof edges
- **Large icicles**, especially near gutters
- **Interior leaks**: stains, peeling paint, wet floors
- **Cold attic spots**, indicating insulation gaps
- **Heavy snow** on steep roofs during freeze-thaw cycles

### Why They are Dangerous

Ice dams can cause:

- Interior damage to ceilings, walls, carpets, and pews
- Electrical hazards from water intrusion
- Mold growth
- Exterior damage to gutters and shingles
- Falling-ice hazards on walkways

### Safe Ice Dam Removal Tips

**⚠️ Never climb an icy roof**—use professionals when needed.

- **Roof raking**: Remove 3–5 ft of snow from the roof edge while standing on the ground
- **Cut drainage channels**: Professionals can steam channels through the ice.
- **Calcium chloride socks**: Place stockings filled with calcium chloride perpendicular to the dam (avoid rock salt)
- **Professional steam removal**: Safest, most effective option
- **Clear gutters** only if safe to do so

### Long-Term Prevention

- **Improve attic insulation** to reduce heat loss
- **Seal attic air leaks** (around chimneys, hatches, pipes, fixtures)
- **Increase attic ventilation** to keep the roof cold
- **Maintain gutters and downspouts**
- **Install heat cables** in problem areas

Scan to  
learn more  
about our  
**Loss Control  
Resources**

