

A Homeowner's Guide to Ice Dams

That beautiful curtain of icicles hanging from your roof? It might be hiding a disaster in the making. An ice dam is a ridge of ice that forms at the edge of a roof, preventing melting snow from draining properly. This trapped water can then back up under your shingles and leak into your home, causing significant damage to your roof, attic, walls, and ceilings.

This comprehensive guide explains the serious harm ice dams can cause and outlines proven, proactive steps homeowners in New Jersey can take to prevent them. Understanding how these destructive ice barriers begin is the first step toward protecting your home and avoiding costly repairs. From the science behind ice dam formation to emergency response strategies, we'll cover everything you need to know to keep your home safe this winter.

By TAHughes.com

How Ice Dams Develop

The formation of an ice dam is a step-by-step process driven by heat loss from your home and freezing temperatures at the roof's edge. Understanding this cycle is crucial to preventing damage before it starts.

01

Snow Accumulation

Snow accumulates on your roof during a winter storm, creating the raw material for potential ice dam formation.

02

Heat Escape

Heat escaping from your attic warms the underside of the roof deck, causing the snow to melt from the bottom up.

03

Meltwater Flow

This meltwater runs down the roof until it reaches the colder eaves at the roof's edge, where temperatures remain below freezing.

04

Ice Ridge Formation

The water refreezes at the eaves. As this process repeats, a ridge of ice builds up, creating a dam that traps all subsequent meltwater behind it.

Because New Jersey commonly experiences temperature swings that move above and below freezing, these freeze-thaw cycles repeatedly melt and refreeze snow, making local homes particularly vulnerable to ice dam formation throughout the winter season.

The Serious Damage You Can't Ignore

Once an ice dam forms and water begins to pool behind it, the consequences can be devastating. The trapped water seeks any path into your home, leading to a cascade of expensive and destructive problems that compound over time.



Shingle & Roof Damage

The pressure from trapped water can lift, crack, and penetrate shingles and underlying materials. Repeated freezing and thawing causes micro-cracks that compromise the entire roofing system.



Interior & Structural Damage

Water that gets past shingles leaks into your attic, soaking insulation and reducing its R-value. It drips onto ceilings and walls, causing stains, promoting mold growth, and leading to rot and warping of wood.



Gutter & Fascia Damage

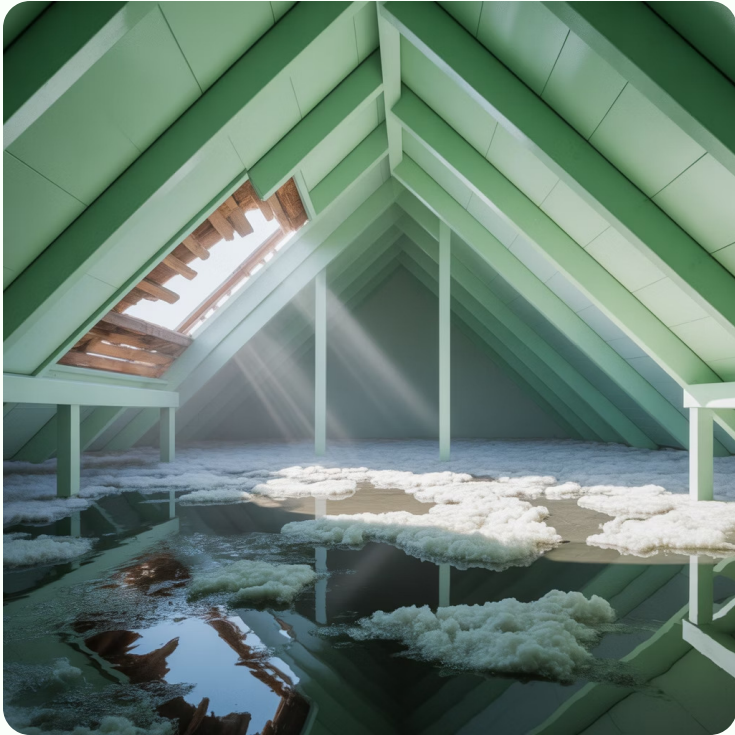
The immense weight of solid ice in gutters can bend them or pull them away from the house entirely. Overflowing water rots the wooden fascia boards that gutters attach to.



Increased Energy Costs

When attic insulation becomes wet, its ability to insulate is severely compromised. This forces your heating system to work harder, leading directly to higher energy bills.

Real-Life New Jersey Example



In one South Jersey case, T.A. Hughes was called after a late winter thaw when a homeowner discovered water stains spreading across their upstairs ceilings. The situation was more serious than it initially appeared.

Our thorough inspection revealed that an ice dam had formed along the roof edge, forcing water under the shingles where it soaked the attic insulation and rotted the roof sheathing beneath. The damage was extensive but preventable.

The repair involved replacing the damaged sheathing, properly insulating the attic to prevent future heat loss, and installing a comprehensive ice and water shield system. This multi-layered approach addressed both the immediate damage and the root cause, ensuring the homeowner wouldn't face the same problem again.

📌 **Key Takeaway:** What started as a simple ice dam resulted in thousands of dollars in repairs to sheathing, insulation, and interior finishes. Prevention is always more cost-effective than repair.



Prevention: The Two Most Important Defenses

Preventing ice dams is an achievable goal that centers on two key principles: controlling heat loss from your home and ensuring meltwater has a clear path to drain away. These foundational strategies address the root cause rather than just treating symptoms.

1

Improve Attic Insulation & Air Sealing

This is the most critical step in ice dam prevention. By properly insulating your attic floor and sealing air leaks around pipes, hatches, and light fixtures, you prevent warm air from reaching the underside of your roof.

A well-insulated attic keeps the roof surface cold, which stops the snow from melting in the first place. Without melting snow, there's no water to refreeze and form an ice dam. Focus on achieving proper R-value for your climate zone and eliminating all air leakage paths.

2

Ensure Proper Ventilation

A balanced ventilation system is equally essential. Using soffit vents for intake and ridge vents for exhaust creates a continuous flow of cold air between the insulation and the roof deck.

This airflow keeps the entire roof uniformly cold, further preventing the melt-freeze cycle from starting. Proper ventilation also helps control moisture in the attic, protecting your roof structure and insulation from deterioration year-round.

Essential Supporting Measures

Beyond the two primary defenses, these maintenance tasks provide additional layers of protection against ice dam formation and potential leaks. Think of them as your insurance policy against winter roof damage.



Install an Ice & Water Barrier

This self-sealing, waterproof membrane is installed under the shingles along the first several feet of the roof's edge. It acts as a final, critical line of defense, stopping any water that gets past the shingles from leaking into your home. This barrier is especially important in vulnerable areas like valleys and eaves.



Keep Gutters Clean

Before winter arrives, make sure your gutters are completely free of leaves and debris. Clear gutters allow meltwater to drain away freely instead of backing up and freezing at the eaves. Schedule a thorough cleaning in late fall, and consider installing gutter guards to reduce future maintenance.



Remove Snow Safely

After a heavy snowfall, use a long-handled roof rake while standing safely on the ground to remove the first few feet of snow from your roof's edge. Less snow means less potential meltwater available to form a dam. Focus on the lower three to four feet of the roof where ice dams typically form.



Emergency Action: What to Do If an Ice Dam Forms

If you see large icicles forming along your eaves or find water stains on your interior ceilings, you must act quickly but safely to mitigate the damage. Time is critical, but safety must always come first.

✓ DO These Things

- Safely remove snow from the roof edge with a roof rake while standing firmly on the ground
- Use calcium chloride (often sold in tablet or pellet form) placed in a porous fabric like a sock or pantyhose. Lay this across the dam to slowly melt a channel for water to escape
- Call a professional for safe removal. Experts use specialized equipment like low-pressure steamers to melt ice quickly and safely without damaging your roof
- Document the damage with photos for insurance purposes

❌ DON'T Do These Things

- Climb onto a snowy or icy roof. The risk of a fall is extremely high and not worth it
- Use brute force. Trying to chip or hammer away the ice with a chisel or axe will almost certainly damage your shingles and gutters
- Use rock salt, which can damage shingles and vegetation below
- Ignore the problem hoping it will resolve itself

❏ **Safety First:** Ice dam removal can be dangerous. When in doubt, always call a professional who has the proper equipment and training to handle the situation safely.

Professional Solutions for South Jersey Homes

At T.A. Hughes, we use a multi-layered approach to diagnose and permanently solve ice dam problems for homeowners in Burlington, Camden, and Gloucester Counties. We address the root causes of ice dams, not just the symptoms, ensuring long-term protection for your home.



Thermal Inspections

We use advanced thermal imaging to pinpoint specific areas of heat loss in your attic, identifying problems invisible to the naked eye.



Air Sealing & Insulation Upgrades

We prevent warm air from reaching your roof deck through comprehensive air sealing and proper insulation installation.



Code-Compliant Ventilation

We install balanced ventilation systems to ensure a cold and dry roof deck throughout the winter season.



Ice & Water Shield Protection

We install ice and water barriers during all re-roofing projects for a final layer of protection against leaks.

We also provide emergency snow removal services, professional ice dam removal using safe steaming techniques, and heat cable installation in vulnerable locations when needed. Our comprehensive approach ensures your home is protected from every angle.



Why Choose T.A. Hughes

Local Expertise

We understand the specific challenges of New Jersey winters and the unique freeze-thaw cycles that make ice dams so common in Burlington, Camden, and Gloucester Counties.

Comprehensive Solutions

We don't just treat symptoms—we identify and fix the root causes of ice dam formation to provide permanent protection for your home.

Proven Track Record

With years of experience solving ice dam problems throughout South Jersey, we have the expertise and equipment to handle any situation safely and effectively.

Don't wait until you see water stains on your ceiling or icicles hanging from your gutters. Prevention is always more cost-effective than emergency repairs. Our team can assess your home's vulnerability and implement solutions before the first freeze arrives.

Schedule Your Winter Roof Assessment Today

Protect your home from costly ice dam damage this winter. Our comprehensive assessment will identify vulnerabilities in your roof, attic insulation, and ventilation system before problems develop.

We'll provide you with a detailed report and recommendations tailored to your specific home and budget. Whether you need a complete attic insulation upgrade, ventilation improvements, or emergency ice dam removal, T.A. Hughes has the expertise to keep your home safe and dry all winter long.

Serving homeowners throughout Burlington, Camden, and Gloucester Counties with professional roofing solutions since 1993.

Call (856) 467-1645

Contact Us Online



Don't let ice dams damage your home. Take action today to protect your investment and ensure a worry-free winter season.