

What are ice dams, how to prevent them and what to do if you have one?



Advice from
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What are Ice Dams?

Driving through your town, you've likely seen many homes with massive icicles hanging down from the edge of the roof. Some are connected to thick walls of ice that run along the entire edge of the roof, while others seem to have formed from within the thick layer of snow found on so many of our roofs. Long, thick icicles, heavy snow packs and thick ridges of ice along the roof line are all signs of an ice dam and should be addressed immediately if you are to prevent damage to your home.

Thankfully, there are a number of ways to remove ice dams once they've developed, and more importantly, there are ways to prevent ice dams from happening in the first place. Here we outline the common causes of ice dams, how to remove them and what you can do to your home to keep them from happening next winter.

What causes an ice dam?

It may seem counterintuitive to some, but ice dams are the result of heavy snowfall followed by a stretch of freezing cold temperatures. As you likely know, this winter's big snowstorms and single-digit temperatures have been perfect conditions for ice dams.

Ice dams form when warm air from inside your home rises into your attic and warms the underside of the roof. This causes the snow and ice closest to the roof to melt. The melt then drains down the roof under the snow until it reaches the overhang. There the water comes in contact with the cold air outside and refreezes into icicles. In some cases, the water refreezes quickly, forming a continually thickening layer of ice along the roof edge, which eventually prevents water higher on the roof from draining off. This pushes the water under the shingles and into the home. When that thickening layer forms, you've got an ice dam.

Getting rid of an ice dam?

If there are signs water is leaking into your home, the ice dam should be removed immediately. Cutting vertical channels into the ice dam every two to three feet is the fastest way to solve the problem. This will allow water behind the dam to flow off the roof. You can use a chisel, hammer or other sharp tool, but proceed with caution. These sharp instruments can damage your roof if you chip too deep into the ice dam, worsening the situation.

Another option is to fill the legs of the eaves with rock salt or calcium chloride and placing them along the edge of the roof, either vertically to form channels or horizontally. If you have a tall roof, tie a long string to the eaves so you can get them down later without having to get out the ladder.

Homeowners should be aware, however, that the chemicals in rock salt can damage aluminum and copper gutters, flashing, and plants below. Communities across New England are beginning to see the harmful results of heavy salt usage on the environment. Although rock salt is relatively cheap and easy, it does have other costs.

Also, don't worry about removing large icicles unless they pose a

direct hazard to people walking below. Removing icicles won't fix the ice dam, and trying to knock them down might cause damage to your property.

If you're not up for climbing a ladder two stories in frigid temperatures to chip away at a thick strip of ice, consider calling a professional. Contractors often offer snow and ice removal services during the winter when construction work is a bit slower.

The preferred method for professional ice dam removal is steam because it is safe and has the least risk of causing further damage, either physically or with the use of chemicals. Using your home water supply, the steamer heats the water to 300 degrees and forces steam through a hose and into a wand. This wand sprays a low-pressure stream that will cut through the ice. Contractors will usually work in chunks, cutting and clearing the ice dam into smaller pieces and throwing them to the ground.

It helps to contact a contractor early in the winter season if you suspect you will have troubles with ice dams over the winter. As the *Boston Globe* noted in a recent article about ice dams, "if ice dams are a common problem for you, you will want to make sure you are on their "dance card" early in the season. They book fast."





Preventing ice dams

Although most of us are more than five feet of snow deep into the winter of 2014-2015, there are a number of things you can do now to help prevent future ice dams from forming.

1. Rake the first three to six feet of your roof above the overhang within 24 hours after a heavy snow storm. This will allow water to flow off the roof more quickly before it has a chance to freeze.
2. Adding insulation to your attic floor will keep the heat in the living space while keeping it out of the attic where it will only lead to more roof melting.
3. Prevent air leaks into your roof by insulating HVAC ducts and the attic hatch, and by sealing electrical cables and vent pipes as they enter the attic. Check ducts that connect to the kitchen and dryer vents. These should lead to the outside through the roof or walls, not through the soffit.
4. Make sure cold air can circulate under the roof. A ridge vent combined with soffit vents can ensure proper air flow through the entire roof.
5. Install a rubberized roofing underlayment under your shingles along all valleys, low-pitch areas and about 6 feet up along the edges.

Winter can be worry free

Winter requires a fair amount of home maintenance, between shoveling walkways, clearing driveways and clearing roofs of snow and ice. Most New Englanders like to take a hands-on approach when it comes to fixing our homes, but there are some problems that pose more of a hazard to the homeowner than others. Removing an ice dam can be a treacherous chore, especially if you own a two-story home. Calling a contractor to do the work will ensure that the ice dam is removed properly while reducing the potential for damage to your home.

Dube Plus has experts available to discuss your ice dam problems. Contact us at (603) 329-5077 info@dubeplus.com for repair and prevention solutions.



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