

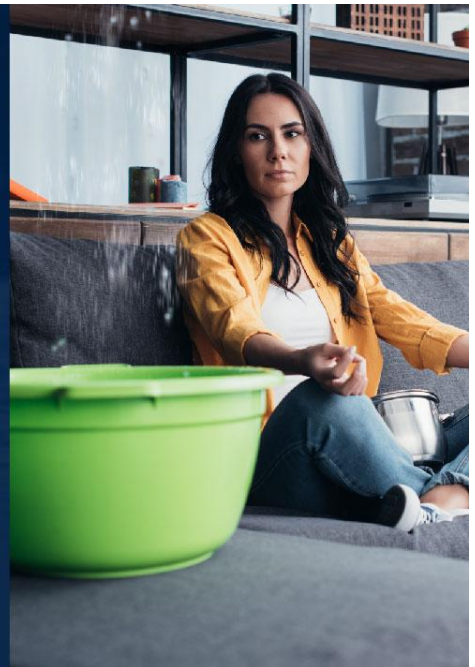


You can stop leaks on your own, regardless of your experience level. Find out how to fix the most common types of roof leaks. The majority of leaks can be repaired in a few minutes.

OUR GUIDE ON REPAIRING A ROOF LEAK

STEP-BY-STEP!

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Leaky Roof Overview

A leaky roof may cause water stains on ceilings and walls. Tracking down the leak is the hard part; repairing it is usually pretty straightforward.

We'll show you some simple tricks for finding leaky roofs and repairing them.

If you live in New Hampshire, Maine, or Massachusetts and have leaks only on warm or sunny days during the winter, you probably have ice dams. For more information on preventing ice dams, check out this article. Even if you are getting a brand-new roof next year, if your roof leaks, you should fix it right away. Mold, rotting framing, sheathing, perished insulation, and damaged ceilings can be caused by even a small leak over a short period. There were stains on the ceiling for over two years due to the flashing leak that caused an expensive repair bill. The homeowner could have avoided significant damage if he had dealt with it immediately.



How to Find Roof Leaks

Whenever you're tracking down a leak, start by looking uphill from the stains. Look for any roof penetrations first. Leaks are most commonly caused by items that penetrate the roof. Even on older roofs, leaks rarely occur in open areas of uninterrupted shingles. The roof may be penetrated by plumbing, roof vents, chimneys, dormers, or anything else that projects through it. You can find them several feet above or to the left or right of the leak. You can find evidence of a leak in the attic using a flashlight if you have access to it. Mold, water

stains, or black marks will be visible. However, if access is difficult or there is a vaulted ceiling, you will have to go up onto the roof and examine the suspect.



A Trick for Finding Difficult Leaks

If you cannot find a leak, enlist a helper and go up on the roof with a garden hose. You should start low and soak the area just above where the leak occurs in the house.

Run the hose in isolated areas. Soak first the downhill side of a chimney, then each side, and then the top on both sides. Wait inside the house for the drip to appear with your helper. Initially, let the hose run in one area for a few minutes before moving it up the roof. Whenever your helper sees a drip, have him or her yell. This will put you in the vicinity of the leak. Don't move the hose too soon, as this process can take well over an hour. Take your helper out to dinner.

Do not be timid if running water does not reveal the exact location of the leak. Start removing shingles from the suspect area. The leak will be visible once they're removed, so you'll be able to pinpoint its source. Under and around a leaky roof, you will see discolored felt paper, water-stained wood, or even rotted wood.



Solution for a Small Leak

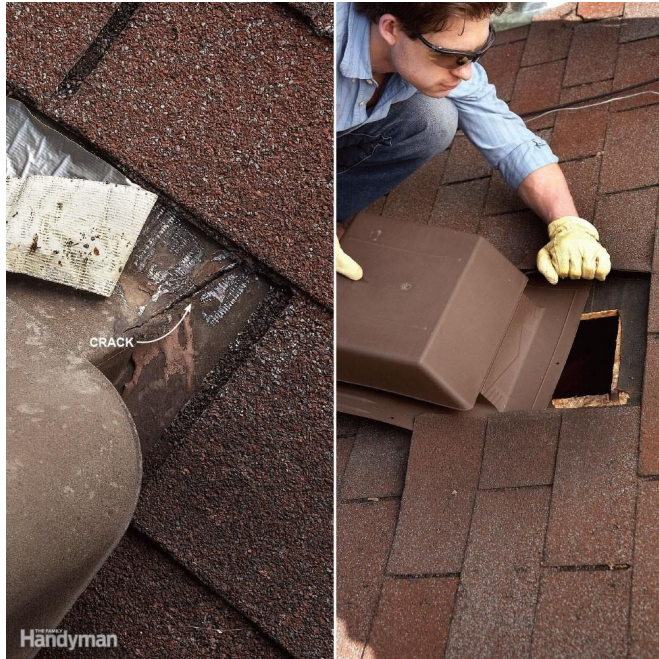
It can be difficult to locate some roof leaks. Water can sometimes appear on a ceiling far from the leak. Look for flow stains on the plastic vapor barrier between your ceiling drywall and attic insulation. It is common for water to run into openings in the vapor barrier, such as at ceiling light fixtures.

As the stain is fairly small, look at the underside of the roof for 'shiners.' A shiner is a nail that missed the framing member when the carpenter nailed the roof sheathing to the rafters. Cold nails often condense moisture that escapes from rooms below into the attic. A cold night in your attic may reveal this. Since the nails are frosted, they look white. During the day, when the attic heats up, the frost melts and drips, and it freezes up again at night. Side-cutting pliers can be used to clip the nail.



Fix Plumbing Vent Boots

It is possible for plumbing vent boots to be all plastic, all plastic and metal, or even two-piece metal units. Make sure plastic bases do not have cracks and metal bases do not have broken seams. Take a look at the rubber boot that surrounds the pipe. When that rots away or tears, water can enter the house along the pipe. You should replace the old vent boot if any of these problems occur. Replace the nails at the base with rubber-washed screws if the nails are missing or pulled free, and the boot is in good shape. With the rest of the screws, you can find them at any home center. Both sides of neighboring shingles must be freed. If you don't have extra shingles, be careful when removing them so they can be reused. Separate the layers of sealant with a flat bar. You can then drive the flat bar under the nail heads to pop them out.



How to Fix Roof Vents

Inspect plastic roof vents for cracked housings and metal roof vents for broken seams. There might be a temptation to throw caulk at the problem, but that solution won't last. The only solution is to replace the damaged vents. At the base's bottom edge, check for pulled or missing nails. Rubber-washed screws should be used instead. The vent can usually be pulled free by removing nails under the shingles on both sides. The top of the vent will also have nails. You can usually work those loose without removing shingles. Rubber-washed

screws should be used to secure the bottom. On both sides of the vent, squeeze a bead of caulk beneath the shingles to keep them in place. It's much easier than re-nailing the shingles.



Fix Walls and Dormers

It is not always the shingled surface that lets water in. Wind-driven rain often comes in from above the roof, especially around windows, between corner boards and siding, and through cracks and knotholes in siding. There are a lot of spots on dormer walls where water can dribble down and enter the roof. Between corner boards and between window edges and siding, caulk can be old, cracked, or even missing. The cracks allow water to penetrate behind the flashing and into the house. Caulk that appears intact may not seal against adjoining surfaces. Use a putty knife to check if the area is sealed. Replace any suspect caulk with high-quality caulk. Check the siding above the step flashing as well. Make sure the new siding overlaps the step flashing by at least two inches if it's cracked, rotted, or missing. Pull the corner boards free and inspect the overlapping flashing at the corners if there is still a leak. At the inside corner of the two pieces, there is often old, hardened caulk.



Complex Roof Problem

Due to poor flashing, this roof leaks during the winter and during storms in the summer. The soffit that meets the roof is one of the most difficult areas to waterproof. An ice dam can still be seen in the

photo. Ice dams form when snow melts on your roof and freezes when it hits the colder edges. Water eventually pools behind the dam and finds its way up under the shingles and under the soffit until it reaches the roof.

In order to stop leaks from rainfall and ice dams, good flashing is important. Install an adhesive ice-and-water barrier under the soffit/main roof joint after removing the shingles down to the wood sheathing. In order to work it in far enough, you may have to cut a slot in the roofs. All the way down to the roof edge, it should overlap another piece of ice-and-water barrier. The most leak-prone areas should be covered by this. After reshingling, slide metal step flashing behind the fascia board (the trim behind the gutter). A valley flashing should overlap the step flashing by at least two inches over the joint where the two roofs meet. Consider installing roof edge heating cables if leaks continue to occur due to ice dams. Attic insulation and ventilation are usually the best ways to prevent ice dams, but they might not be effective in this complicated leaky roof situation.



Fix Step Flashing

Along walls that intersect the roof, step flashing is used. Water is channeled downhill from each short section of flashing. But if the flashing rusts through, or a piece comes loose, water will run right

behind it and into the house. It is necessary to replace rusted flashing. The shingles must be removed, the siding must be pryed loose, and the step flashing must be removed and replaced. Simple as that. Sometimes, a roofer forgets to nail one in place and it slips down, exposing the wall beneath. For more information on installing your own step flashing, read [this article](#).



Don't Count on Caulk!

It is rare for caulk or roof cement to cure a leaky roof - at least for a long time. The best way to fix a leaky roof is to try a mechanical fix whenever possible. Rather than using sealants to stop leaks, replace or repair existing flashing. As a leak stopper, only use caulk for small holes and when flashing isn't an option.



Fix Small Holes

Small holes in shingles can cause rot, leaky roofs and other damage for years before you notice anything is wrong. Satellite dishes, antenna mounting brackets, or just about anything can leave holes. In addition, exposed, misplaced roofing repair nails should be removed and the holes patched. Fixing small holes is simple, but it doesn't involve injecting caulk into them. Flashing will fix this leaky roof problem.