



RESIDENTIAL MOISTURE: ISSUES AND SOLUTIONS

Home moisture issues come in many shapes and sizes, and while condensation on mirrors, windows and walls may seem harmless, it can lead to more serious problems. Dealing with and managing moisture is essential to keeping mold out of the house and ensuring your family stays healthy and safe. Left unaddressed, mold can cause allergic reactions, asthma attacks and other respiratory issues and can also damage your home. Indeed, moisture and mold problems are some of the most damaging for the structure of homes and should be remedied as soon as they are identified.

CAUSES

Moisture originates from a number of places and activities, and it is important to be aware of its sources. Daily tasks such as cooking, bathing and doing laundry can all produce moisture, but it can also result from a damp or wet crawl space or basement, roof leaks, plumbing leaks or a house flood. Homes with unvented combustion devices, such as gas/oil heaters, fireplaces, gas ranges and ovens, are at risk as well because these emit water vapor that should be vented to the outside.



SOLUTIONS

If you have moisture issues in your home, here are several areas to investigate.

- Check your attic for roof leaks, and check your crawl space or basement for standing water or plumbing leaks.
- Use exhaust fans when bathing and cooking and let them run for a few minutes after the water is off and the food is ready. Test the fans to make sure they are working properly – the kitchen exhaust fan should be able to hold up one sheet of letter-size paper when running, while the bathroom fan should hold at least two sheets of 2-ply toilet paper folded on top of each other. Also, inspect the ductwork attached to these fans. Are the ducts still connected? Do they go all the way to the exterior skin of the home? Can they still move air out of the house?
- Ensure your HVAC ductwork is properly sealed to avoid outside air getting in. Check for other places where moist outside air could enter your home, such as holes and openings around doors and windows, in the ceiling around light fixtures, in the floor and around attic hatches.
- Clean your gutters and downspouts and make sure the ground slopes away from your home so water does not enter or build up around the foundation. Additionally, check that your air conditioner's drain line is clear (i.e., water should be dripping from it). If it is not, humid air could be recycled back into your home.
- Cover the ground of your crawl space with plastic sheeting. A 6-mil polyethylene cover overlapping the seams by 12 inches works well. If you want to go one step further, consider closing your crawl space completely. With proper installation, closed crawl spaces, which are insulated spaces without vents to the outside, can significantly improve moisture control as well as produce energy savings. Closing and dehumidifying your crawl space is particularly important after flooding, as mold may grow and creep into your home.
- Install a dehumidifier for use inside your home or crawl space. It can be a standalone unit or incorporated into your existing HVAC system (a licensed HVAC contractor will be able to install this type). For people with allergies and asthma, it may be beneficial to install a medical grade air purification system that removes mold spores, chemicals and even viruses from the air.

Understanding where moisture comes from will allow you to better take control of the situation and keep you, your family and your home healthy and safe. There may be more than one source of moisture, however, so taking a whole-home approach can ensure that you are addressing problems you may not be able to see. For some repairs, reputable general and HVAC contractors may be a big help, but make sure they have received training on moisture issues and mold prevention for best results.

This article was provided by Advanced Energy, a nonprofit energy consulting firm. For more information, visit www.advancedenergy.org.

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