

Remediating Mold: A Clip-Out Checklist for Building Professionals

Diagnosing and remedying mold and moisture problems requires good detective skills, proper safety precautions, and a working knowledge of the best practices for mold cleanup and building rehabilitation. Before you address any extensive mold problem, it's important to get qualified training and to understand all the factors that may lead to moisture damage. This checklist highlights some of the basics of mold remediation.

Key Causes of Mold and Moisture Problems

- ✓ Plumbing leaks
- ✓ Roof leaks, often caused by ice dams
- ✓ Damp basements and crawlspaces
- ✓ Inadequate or blocked gutters and spouting
- ✓ Gaps in window and door flashing
- ✓ Poorly designed or constructed walls (for example, wrong placement of vapor barriers, poor insulation, no drainage planes, air channels)
- ✓ Other flaws in rain management systems
- ✓ Failure to use, or inadequate, kitchen and bathroom vents
- ✓ Unvented, or blocked vents, for heaters and other combustion appliances
- ✓ Leaky or uninsulated ducts
- ✓ Excessive use of humidifiers

Investigating a Suspected Mold Problem

- Wear a mask (HEPA filter if you suspect there's a major problem) and goggles. Put on gloves and protective clothing, if necessary.
- Interview the residents about any health problems and leaks.
- Assess the extent of the contamination and what level of remediation is required.
- Mold usually forms dark patches, but it can be other colors. Look for stains along the edge of wallpaper, paneling, and baseboards. Pull up or remove a small piece in a suspected area, but stop if you see a heavy growth.
- If you find a major problem, seal off the area and keep residents out of the room or house.

Basic Cleanup Procedures

- Get rid of any water and dry out the area.
- Cover or remove nearby furniture. Seal off vents and ducts.
- Wash off surface mold with a baking soda or vinegar solution or with TSP or another strong cleaning agent. TSP is corrosive. Be sure to protect your skin and eyes when using it.

- Dry items that aren't moldy within 48 hours. Dry and clean moldy items that are reusable. Discard porous items that can't be salvaged.
- Remove and bag all contaminated materials.
- Clean all surfaces. Vacuum the surfaces to be cleaned with a vacuum equipped with a HEPA filter or with a centrally exhausted vacuum cleaner, in order to remove any loose debris. HEPA vacuuming or exhausting to the exterior prevents dispersion of spores and fungal particles back into the house. Scrub the floor, if needed.
- Discard all vacuum bags and rags.
- Ventilate and dry the area again. Check that all surfaces are clean (use the white glove test).
- Obtain and follow full remediation practices for all moderate or extensive mold problems. (See *Resource List* in the *Mold in Houses Technical Bulletin*.)

- Determine what has caused the moisture penetration or condensation. Fix the problem immediately.

Assessing the Cause and Extent

- Determine if there was any specific leak or event that caused the damage. Plumbing and roof leaks are frequent culprits. In winter, check for ice dams and roof leaks. Remember that there can be more extensive damage than what is visible.
- Use a moisture meter to test the dampness in suspect walls or surfaces.
- Remove a small section of a wall or ceiling if you suspect a hidden problem.
- Look for peeling paint, stains on the siding, or bulges in the walls or ceilings.
- Check window, door, and chimney flashings. Look for gaps in siding.
- Look for kitchen and bathroom vents and find out whether they are used. Check out other ventilation systems. Determine if there are humidifiers in use.
- If there are no obvious leaks or moisture sources, consider how moisture could be

migrating and condensing on colder surfaces. Cathedral ceilings and walls with poor insulation and wall design are good suspects for this phenomenon.

- Check basements or crawlspaces for dampness. Determine if there are rain gutters and spouting, and if they are clear and directed into a drainage system or away from house.
- Assess the air flow patterns in the house.
- Check for unvented, or blocked vents, for combustion appliances. Determine how makeup air is supplied for the heaters.
- Check for duct leaks and uninsulated ducts, particularly in unconditioned spaces. Check the air conditioning and verify that it is properly sized.
- If the house has an exterior insulated and finish (EIFS) wall system, check all flashings and determine if the wall system has proper drainage planes.
- If you can't determine, or are uncertain about, what is causing the damage, contact a moisture auditor or another building performance professional to investigate the situation. The best practice is to diagnose and solve the underlying problems, not just guess. Any moisture and mold that is not remedied can continue to cause structural and health problems for the residents.
- Testing for mold is usually not helpful. It can be used to pinpoint problem areas or to verify that mold counts are reduced. To be verifiable, mold testing must be done by a qualified technician and assessed by a certified laboratory.

Cleanup Protocols for Moderate or Extensive Damage

- Hire a professional service or obtain the necessary training for cleaning and repairing moderate or extensive mold damage. You can endanger your own health and that of the occupants if you don't follow the recommended procedures. You can also leave mold residues that will continue to grow.

—Gloria Fultz

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A longer checklist and two other documents, *Mold in Houses Technical Bulletin* and *Resource List*, are available on the Affordable Comfort Web site, www.affordablecomfort.org, as well as information about upcoming training events, including a regional training conference in Chicago, Illinois, October 22 – 23, 2002.