



Mold in Houses Building Professional Checklist

Diagnosing and remedying mold and moisture problems in a home or building requires good detective skills, proper safety precautions and a working knowledge of the best practices for mold clean-up and building rehab. Before undertaking any extensive mold problem or business, 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. Consult ACI's *Mold in Houses Technical Bulletin* and *Resource List* for more details.

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, e.g. wrong placement of vapor barriers, poor insulation, no drainage planes, air channels.
- ✓ Other flaws in rain management systems.
- ✓ Inadequate or non-use of kitchen and bathroom vents.
- ✓ Unvented or blocked venting for heaters and other combustion appliances.
- ✓ Leaky or un-insulated ducts.
- ✓ Excessive use of humidifiers.

Safety Tips for Diagnosing Mold Problems

- ✓ Do not touch mold or moldy items with bare hands.
- ✓ Do not get mold or mold spores in your eyes.
- ✓ Do not breathe in mold or mold spores.
- ✓ Wear a N-95 respirator (HEPA filter if you suspect there's a major problem), gloves and goggles. Put on protective clothing, if necessary.

Investigating a Suspected Mold Problem

- 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 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 Clean-up Procedures

- Get rid of any water and dry out the area.
- Cover or remove nearby furniture and furnishings. Seal off vents and ducts.
- Wash off surface mold with baking soda and vinegar. If you clean and dry the area, you don't need bleach, a biocide or stronger cleaner. Do not mix bleach with another cleaner.

- 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. Don't carry items through clean areas.
- Clean all surfaces and vacuum or scrub the floor. Discard all vacuum bags and rags.
- Ventilate and dry the area again. Check that all surfaces are clean (white glove test.)
- Obtain and follow full remediation practices for all moderate or extensive mold problems.
- Determine what has caused the moisture penetration or condensation. Fix the problem immediately.

Assessing the Cause and Extent of the Mold and Moisture Damage

- Determine if there was any specific leak or event that caused the damage. Plumbing and roof leaks are frequent culprits, but check for hidden or more extensive damage. Remove a small section of a wall or ceiling if you suspect a hidden problem. Check for evidence of damage from ice dams.
- Use a moisture meter to test the dampness in suspect walls or surfaces.
- 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 and determine if kitchen and bathroom vents 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 airflow patterns in the house.
- Check for unvented or blocked vents for combustion appliances. Determine how make-up air is supplied for the heaters.
- Check for duct leaks and un-insulated ducts, particularly in unconditioned spaces.
- Check the air conditioning and verify if it's properly sized.
- If the house has an exterior insulated foam (EIFS) wall system, check all flashings and determine if it has proper drainage planes.
- If you can't determine the cause or are uncertain about what is happening, contact a moisture auditor or building performance specialist to investigate the situation. The best practice is to diagnose and solve the underlying problems, not just guess. Any moisture and mold you miss can continue to cause structural and health problems for the residents.
- Testing for mold is usually not helpful. It may be used to pinpoint hidden sources or to verify if mold counts are reduced, but results are unpredictable. To be verifiable, mold testing must be done by a qualified technician and assessed by a certified laboratory

Clean-up 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, as well as leave moist building materials and hidden mold that will continue to grow.

For more details on how to assess and remedy mold and moisture problems, attend regional training events or the next Affordable Comfort Conference, Kansas City, March 31 – April 5, 2003. Obtain ACI's *Mold in Houses Technical Bulletin – What Building Professionals Need to Know to Diagnose and Solve the Problem* and the *Mold Resource List*. Visit the ACI website or call for more details.