



TOOLKIT FOR
**Managing Mold
and Moisture in
Rental Properties**

*Best Practices for preventing,
addressing, and cleaning up mold
problems in rental properties*



Maine Indoor Air
Quality Council



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Manage Mold and Moisture in Rental Properties

Protect Your Investment and Your Tenants' Health

Mold and moisture problems indoors can:

- Damage the rental property.
- Put tenants at risk of health problems from exposure to mold, dampness, and bacteria.
- Attract unwanted visitors: ants, mice, roaches, and other pests.

This Toolkit provides you with information and resources for creating a mold and moisture-managed rental property. It includes:

- Basic mold facts
- Strategies to **prevent** moisture and mold problems in rental units
- Strategies to **address** moisture and mold problems in rental units when they occur
- Best practices for proper clean-up of a mold and moisture problem

Throughout this Toolkit, you will find practical tips and links to helpful resources to help you achieve your goals for a mold and moisture managed rental property.

Use These Key Strategies to Create a Mold and Moisture-Managed Rental Property

- 1** Manage units to prevent mold and moisture problems in buildings. This is a shared responsibility of both the landlord (to manage the building to prevent moisture problems) and the tenant (to manage their unit to prevent moisture problems).
- 2** When mold and moisture problems occur, address them quickly and properly. This is a shared responsibility of both the tenant (to promptly notify the landlord of problems) and the landlord (to promptly and properly respond to moisture complaints).
- 3** Clean-up and repair of the property using best practice guidance to protect workers and occupants from mold exposures and to prevent making an existing mold problem worse.

Basic Mold Facts

- 1** Mold is everywhere in our environment, both indoors and outdoors.
- 2** Mold becomes a problem when it takes root and actively grows indoors.
- 3** Mold can damage building materials and make tenants sick.
- 4** Mold indoors can affect the health of some, but not all, people. Scientific studies of indoor mold and health identifies the following health effects:
 - Itchy eyes, runny nose, headaches, skin rashes
 - Allergies
 - Worsened asthma (1 in 9 Mainers have asthma)
 - Infections in individuals with serious or life-long illness. Most symptoms are temporary and will go away once a mold problem is fixed.
- 5** Mold needs moisture in order to grow and survive. The best way to reduce mold exposure is by controlling moisture. Moisture problems may happen in buildings when:
 - Outdoor water leaks through the roof, foundation, windows, or walls.
 - Humidity indoors is excessive or causes condensation.
 - Plumbing leaks occur inside the unit.
 - Drains get plugged.
 - Housekeeping is poor or inadequate.
- 6** Mold growths, or colonies, can start to grow in high humidity or on a damp surface within 24 to 48 hours.
- 7** To effectively address a mold problem in indoors:
 - First, fix the moisture problem causing the mold growth.
 - Second, remove moisture damaged material.
 - Third, properly clean and repair the area.
- 8** Using chemicals to kill mold spores may not protect people from getting sick. Mold does not have to be alive to cause health problems.
- 9** When repairing a moisture problem and cleaning up mold, it is very important to follow best practices for:
 - Assessment
 - Containment
 - Waste disposal and cleaning
 - Repair

What's Your Mold IQ?

[Click here](#) to take a short, 10 question quiz about mold! Or Scan this QR Code:

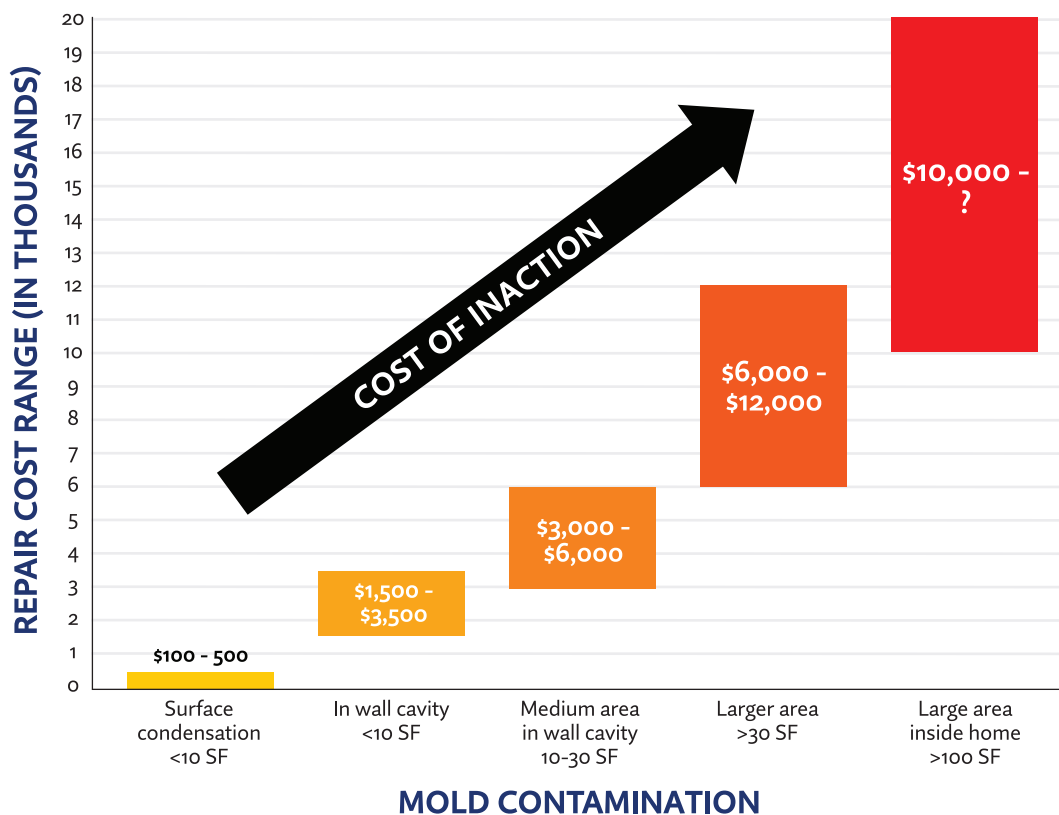


10 Following best practices is very important to protect workers and prevent spreading mold spores to the rest of the building. Guidance is available through readily available resources, or hire the services of a properly trained, experienced professional.

Fix moisture problems quickly to:

- Reduce the risk that tenants will get sick from mold exposure.
- Reduce the increased cost of repair and remediation of mold damage from unaddressed moisture problems.

11 See the numbers! It will cost more, potentially significantly more, to clean and repair a building when an active moisture problem is allowed to linger.



RESOURCES

Best Practices Resources for Repair and Clean-up:

- [U.S. EPA Guide for Mold Remediation in Schools & Commercial Buildings](#)
- [NYC Dept. of Health Guidelines for Assessment & Remediation of Fungi in Indoor Environments](#)

How To Create Effective Landlord-Tenant Communications

Landlords and tenants must know how to communicate with each other. Knowing when to reach out to one another will help:

- Reduce property damage when mold and dampness problems occur.
- Protect the health of current and future tenants through prompt, proper attention to a mold and dampness problem.

The Maine Indoor Air Quality Council recommends that all communications between landlords and tenants be put in writing – either by e-mail or U.S. mail. In the event that “emergency” situations occur, such as for liquid water events, it is best for landlords and tenants to communicate by phone first. After talking on the phone, follow-up with an e-mail or letter.

TIP *When landlords inform tenants about their expectations for communication prior to signing the lease, it can greatly improve the landlord-tenant relationship. Landlords can ask tenants to contact them as soon as they notice problems indoors that can damage the physical property or affect tenant health and safety. Prompt written replies can ease tenant concerns.*

TIP *When tenants are unwilling, for whatever reason, to communicate with landlords when experiencing problems in their units, regular visual inspections of units by landlords will be critical to catch moisture problems before they become mold problems.*

Why do we use the term “liquid water event”?

Liquid water events occur when something is both wet and leaking into a rental unit.

Common causes of liquid water events are roof leaks, plumbing leaks, or floods. Liquid water events are serious and require immediate action by both landlords and tenants.



Prevent Mold & Moisture Problems in Rental Properties

Landlord and Tenant Responsibilities

Mold can be a health problem for building tenants. Mold is a common trigger of asthma attacks. In Maine, 11% of adults and children have asthma, and many others have allergies to mold. Landlords can therefore expect that at some point, they will have tenants with asthma or mold allergies living in their units.

Preventing moisture problems and mold growth is a shared responsibility of both landlords and tenants. Landlords and tenants can use the following simple checklists to better manage units to prevent mold growth in buildings. These strategies will make apartment unit(s) healthier for the tenants, as well as reduce the need for expensive repairs.

What Landlords and Property Managers Can Do

Landlords and property managers can follow this simple two-step process to properly prevent mold growth in their buildings. Preventing leaks and moisture problems and fixing water damage quickly are the keys to preventing mold growth in rental units.

Step 1. Moisture Maintenance and Repairs

Perform these simple tasks in units prior to tenants moving in:

- Repair any exterior building leaks that let water into the building.
- Ensure good drainage around the building:
 - Gutters and downspouts should be connected and clear of debris
 - Grade soil away, not towards, the building
 - Test drainage with a hose.
 - Clean out drain pipes if clogged
- Repair any plumbing leaks, including tightening clamps on washing machine connections. Vent all dryers to the outside.
- Insulate cold water piping.
- Install kitchen and bath fans that are vented to the outside.

TIP

Low-noise fans have a better chance of being used by tenants. Connect bathroom fan and light on a single switch so fan automatically turns on when the light is turned on.

- Seal, caulk, and replace broken glass on old windows to minimize air leakage, or replace with new windows.
- Replace any drywall, insulation, carpet/pad, and (if necessary) wood surfaces that have been wet for more than 48 hours.
- Install dehumidifiers in areas with chronic high humidity (60% relative humidity or higher), such as basements and crawlspaces.

TIP *Dehumidifiers require periodic maintenance. Select a model that meets your needs and the needs of your tenants. For basement applications, select unit intended for basement use.*

- Never put materials that are prone to mold growth in contact with an uninsulated basement floor:
 - Remove all carpets from uninsulated basement slabs.
 - Limit storage of tenant personal items in an uninsulated basement.
 - If necessary, provide tenants with utility shelves for storage of personal items.
- Install towel racks (one per occupant) in the bathroom
- Install or provide a device that monitors relative humidity (RH). Inform tenants to contact you if the RH is consistently above 60%.

TIP *Print out the [tenant checklist](#) and post it in each unit. Discuss your expectations with tenants when they sign the lease or rental agreement.*

Step 2. Annual Moisture Inspection of Rental Units

Conduct a moisture inspection every year and between tenants. Check the following areas for wet spots, condensation, leaks, or water stains (often an indicator of past leaks.) Insects and insect damage may also be a sign of water problems.

- Plumbing under sinks and in the basement
- Windows and doors
- Around tubs, showers, sinks, and toilets
- Roofs and attics
- Ceilings and walls
- Carpets
- Washing machine connections
- Basements and crawlspaces

PRINTABLE CHECKLIST RESOURCES

- [Landlord checklist to prevent moisture problems in rental properties](#)
- [Tenant checklist to prevent moisture problems in their units](#)
- [NIOSH mold & dampness assessment tool](#)

What Tenants Can Do

Tenants can help their landlord reduce the risk of moisture and mold growth in their units by following these steps to keep their apartment clean and dry:

- Turn on bathroom ventilation fan or open the window when showering. Leave fan on or keep window open until all condensation has been ventilated out.
- Turn on kitchen ventilation fan when cooking. If fan isn't vented outdoors (ask your landlord), also crack open a window when cooking.
- Clean up any water spill or leak immediately especially around the tub, sink, toilet, washing machine, and plants.
- Never leave wet towels or laundry on the floor. Hang them up to dry.
- Dry all wetted areas, especially carpets and furniture, quickly and thoroughly.
- Clean showers and tubs regularly.
- Vacuum at least once a week.
- If your refrigerator was made before 2000, check and empty the drip pan often. Ask your landlord how to do this.
- Clean refrigerator regularly, inside and out.
- Check the following areas for moisture or leaks:
 - Pipes under sinks or by washing machine
 - Window and door frames
 - Ceilings and walls
 - Basement
- Monitor the relative humidity (RH) in your unit. Notify your landlord if the RH is consistently above 60% .

REMINDER:
Always notify the landlord immediately if you see a problem with leaks, moisture, or mold in your apartment!



What to Do When Mold & Moisture Problems Occur in a Rental Unit

Both landlords and tenants share responsibility for making sure that mold and moisture problems are quickly and properly addressed. Follow these steps to know what each should do, and when.

TENANT RESPONSIBILITIES for Liquid Water Events

- 1 Notify* landlord **immediately**. Liquid water leaks are emergency situations.

When liquid water is entering the unit in any location, notify the landlord IMMEDIATELY. When the tenant tells their landlord about liquid water leaking in, it gives the landlord permission to enter the unit immediately to investigate the problem.

** Notify by phone and follow up in writing (by e-mail or by US mail)*

- 2 Allow Access.

Tenants need to allow access by landlord's workers to fix any water leaks in the building, to remove wet materials, and to clean and repair the area. The landlord may need access to one unit in order to repair another unit with a leak.

TENANT RESPONSIBILITIES for Mold/Mold Odor Issues

- 1 When a tenant finds an area of visible mold growth or a consistent moldy odor in their unit, they should complete the following steps:

Check the unit very well. Look for moisture and odor sources such as:

- Wet clothing or laundry
- Rotten foods
- Full trash cans
- Spills
- Pet waste
- Refrigerator drip pans
- Carpeting

- 2 Notify Landlord. Notification can be by phone, but it is best to follow up in writing (by e-mail or by US mail)

If visible mold growth or moldy odor is either unrelated to a housekeeping issue or cannot be found, then tenant should notify their landlord as soon as possible (within 5 business days).

3 Allow Access.

After receiving reasonable notice* by the landlord, tenants need to give the landlord or the landlord's workers access to the unit to fix the mold or moisture problem.

**Maine state law presumes 24 hours written notice.*

4 Complete tasks when requested.

Tenants can help resolve problems if they complete any and all tasks requested of them by the landlord or the landlord's workers. This might include:

- Run kitchen and bath fans regularly
- Help to clean the area
- Use and maintain a dehumidifier
- Other moisture management tasks as requested by the landlord.

LANDLORD RESPONSIBILITIES for Liquid Water Events

1 Liquid water events are emergency situations.

When informed by a tenant of a liquid water event in a unit, respond IMMEDIATELY. Do everything possible to stop or limit the leaking, even if only temporarily. This could be:

- Turning off the water to a leaking pipe,
- Clearing an ice dam on the roof,
- Patching up holes
- Unplugging clogged drains
- Digging an exterior drainage ditch
- Patch roofing
- Using portable pumps

2 To prevent mold growth, remove or dry all wet materials within 12-24 hours.

TIP See page 11 in the [EPA mold remediation guide](#) for strategies for specific wetted materials.

If a material has been wet for more than 48 hours or if the timeline of wetness is unknown, the material is damaged and should be removed rather than dried or cleaned.

3 Repair the source of the water leak.

4 Clean and repair affected areas.

LANDLORD RESPONSIBILITIES for Mold Growth/ Mold Odors

1 Inspect.

As soon as possible, but within 5 business days after notification by tenant, check the unit for evidence of mold growth and moldy odors, as well as presence of or evidence of long-term moisture problems: water leaks, condensation, plumbing leaks, high humidity, and staining.

2 Create a Repair Plan

If necessary, within 5 business days from your inspection after a tenant complaint, develop a written repair and clean-up plan that follows generally accepted best practice principles for the clean-up and repair of the mold and moisture problem.

3 Share the plan with the tenant and ask for their help in the process, such as by giving access to the unit, using kitchen and bath fans, and other daily activities to minimize moisture.

TIP *Following best practices will help protect workers and prevent spreading mold spores to the rest of the building. Mold guidance is available through the following resources, or hire the services of an educated, experienced professional.*

4 Help tenants find alternative housing during clean up and repair if required to ensure the health and safety of the tenant:

- Tenants who have health effects from mold exposure can be further harmed by the clean-up and repair process.
- Cleaning and repair work often requires significant demolition which makes the living space unsafe for any tenant

RESOURCES

- [U.S. EPA Guide for Mold Remediation in Schools & Commercial Buildings](#)
- [NYC Dept. of Health Guidelines for Assessment & Remediation of Fungi in Indoor Environments](#)

Follow Best Practices for Clean-up of Smaller Mold Problems

Smaller mold problems are ones with a total combined area of mold contamination area equal to or less than the size of your front door.

Cleaning up a mold problem needs to be approached thoughtfully and carefully, with knowledge of available best practice principals. Following best practices for cleaning up a mold problem is extremely important because:

- Failure to follow best practices can make your mold problem worse, leading to additional cost to clean and repair.
- Using best practices protects clean-up workers from exposure to mold spores.
- Using best practices protects building occupants from exposure to mold spores.

TIP

*Do you need a professional? Hire a professional if:
The combined area of mold contamination is larger than your front door or
Possibly hidden behind your wall material*

Before you start a mold clean-up project, create a clean-up plan that identifies the scope and strategy you will use. **Every** mold clean-up project should follow established best practice, even very small ones.

RESOURCES

- [U.S. EPA Guide for Mold Remediation in Schools & Commercial Buildings](#)
- [NYC Dept. of Health Guidelines for Assessment & Remediation of Fungi in Indoor Environments](#)

Summary of Best Practices for Smaller Mold Clean-Up Projects

- 1 Fix the problem.** Fix the moisture problem that caused the mold growth. Without this critical first step, the mold will likely come back.
- 2 Protect yourself.** Put on gloves, a mask (N-95 disposable respirator recommended), goggles, long pants, and a long sleeve shirt. These protect your eyes, airways, and skin.

- 3 Know what you've got.** Before disturbing walls or doing any demolition, determine first if there's either lead paint or asbestos present in the demolition area. If you suspect the presence of either lead paint or asbestos, follow the guidance in these resources:

RESOURCES

- State of Maine Lead Page maine.gov/dep/waste/lead/index.html
- State of Maine Asbestos Page maine.gov/dep/waste/lead/index.html
- EPA Learn About Asbestos [Learn About Asbestos | US EPA](#)
- EPA Learn About Lead [Learn about Lead | US EPA](#)

- 4 Remove it.** Your primary goal is to remove the mold from the indoor environment. Killing it or covering it with paint may not prevent it from growing back. Plus, dead and/or covered mold spores can still cause health problems. Remove the moldy material from the building instead of killing or covering it.

TIP

What about bleach? Bleach may temporarily kill mold, but it doesn't remove it. More importantly, bleach is an EPA-registered pesticide and a significant lung irritant. In Maine, only licensed, pesticides applicators are allowed to use a pesticide in non-owner occupied units. When it comes to bleaching away a mold problem, don't do it.

- 5 No people.** Keep the areas impacted by the clean-up project unoccupied until project completion. This includes the project area, and any interior walkways/pathways used to go in and out of the house from the project area.

- 6 Contain.** Cleaning up mold spores is similar to cleaning up dust from taping and sanding drywall. Like drywall dust, mold spores will spread everywhere if given the chance. Close off and seal the work area to prevent mold spores spreading to other indoor spaces.

- 7 Cover.** Electronics, carpets, furniture, and other items that can't be removed from the clean-up area should be covered with plastic and sealed with tape.

- 8 Cleaning.** You can scrub mold off of hard surfaces with soap (dish washing liquid or detergent) and a damp rag. Examples of hard surface materials include linoleum, tile, vinyl, plastics and metal. Soft, absorbent, or porous materials may have to be thrown away. Mold can grow in the tiny holes/spaces in the material and can't be cleaned away. Examples of soft surface material include ceiling tiles, carpet, and furniture.

TIP

If you are unsure about how to clean an item, or if the item is expensive or of sentimental value, you may wish to consult a specialist. Specialists in furniture repair, restoration, painting, art restoration and conservation, carpet and rug cleaning, water damage, and fire or water restoration are commonly listed in phone books or online. Be sure to ask for and check references. Look for specialists who are affiliated with professional organizations.

9 Do not disturb. Try not to break apart the materials containing mold, which can spread mold spores everywhere. If cutting out drywall or other materials, make your cuts outside of the moldy area: 1-2 feet outside moldy area in every direction is recommended.

10 Assess your skills. If you aren't comfortable building a wall, you probably shouldn't take one apart without professional help.

11 Bag it. Place all moldy materials in a heavy-duty plastic bag (such as a contractor bag) and seal the bag BEFORE carrying it through an indoor space for disposal.

12 Know when you need help. Small mold clean-up projects (about the size of your front door) may be done by non-professionals as long as best practice guidance is followed. Larger projects or projects where mold may be hidden within wall cavities require the assistance of an adequately trained and qualified professional.

TIP Hire a mold inspection or remediation professional affiliated with or certified by the [National Environmental Health Association \(NEHA\)](#), the [American Industrial Hygiene Association \(AIHA\)](#), the [Institute of Inspection, Cleaning and Restoration Certification \(IICRC\)](#), or the [American Council for Accredited Certification \(ACAC\)](#) to inspect, repair, and restore the damaged parts of your home. Many of these organizations have directories with lists of local professionals.

13 Clean up your mess. The work area and any areas used to go in and out of the building should be either:

- HEPA vacuumed (a vacuum equipped with a high-efficiency particulate air filter)
- OR
- Cleaned with soap or detergent using a damp cloth and or mop.

14 Make it better than before. Once moldy materials have been removed and the area cleaned according to best practice principles, repair the affected area. Consider using materials that may prevent future problems, such as fiberglass or moisture-resistant drywall instead of paper backed gypsum drywall in damp areas like bathrooms and basements.

15 The white glove test. Make sure all areas of the project are left dry and dust-free.

16 Revisit. Inspect the area a month after the work is completed. Make sure there is no sign of moisture damage or mold growth. Confirm occupants are not having health effects.

Do You Need a Mold Test?

Mold testing is not like testing for other indoor pollutants, such as radon or asbestos. Because individuals react differently to mold exposure, there are no set standards for mold tests.

Mold testing is the process of identifying what types of mold are present and in what quantities. Generally, your annual moisture inspection may be all the “testing” you need. If you see mold or smell mold during your inspection and can clearly identify the source of the moisture problem, you can assume you have mold and can take action to fix the problem.

If you suspect hidden mold, or someone in the home has a sensitivity to a certain type of mold, consider professional testing and analysis.



Additional Resources

- [*Printable checklist for tenants*](#) to prevent mold and moisture in their unit
- [*Printable checklist for landlords and property managers*](#) to prevent mold and moisture in their unit
- [*Printable infographic*](#) to post in building common areas
- [*U.S. EPA Mold Resources*](#)