



Mold and Moisture Prevention

A Guide
for Residents in
Indian Country

This pamphlet is for residents in Indian country, and provides an overview of mold and moisture issues, a description of the steps homeowners and renters can take to reduce mold and mildew, and a list of additional resources.

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Mold Prevention

A Guide for Residents
and Homeowners in
Indian Country

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BACKGROUND

What is mold?

Mold is a fungus, along with mushrooms and yeasts. Outdoors, mold is an important part of nature, because it breaks down dead trees and fallen leaves. But mold growing indoors should be avoided, because it can damage belongings, carpets, sofas, and mattresses. Mold can weaken floors and walls, making a house unsafe. Mold can ruin clothes and shoes in damp closets.

Why is there mold in my house?

All houses have some mold in them, but if your house is moldy, this is a sign of that it has a problem with dampness or water.



Mold on window sill

When there is moisture in a home, mold can begin growing there. If your home can be kept clean and dry, then you can also keep it from becoming moldy.

Is mold harmful?

Scientists are still investigating the medical issue of living in a moldy home. Some people don't react to mold at all, while others have allergies or other health problems. The very young, elders, asthmatics, and people recovering from surgery

or undergoing chemotherapy may be more sensitive. The most common signs of living in a moldy home are allergic reactions (like symptoms of hay fever: sneezing, runny nose, red eyes). If someone already has asthma, living in a moldy home may make it worse. People with health problems that they believe are due to mold should consult their healthcare providers for referrals and care.

Where is the dampness coming from?

These are some ways mold can find enough moisture to grow in a house. If the house:

- Has no exhaust fan in the bathrooms and/or kitchen range hood or has one that isn't used
- Has a dryer with no vent to the outdoors, or clothes drying indoors
- Has puddles next to the foundation of the house after it rains
- Has blocked, missing, or poorly installed gutters and downspouts
- Is missing insulation in walls or ceilings in cold climates
- Has a damp or leaking basement or crawlspace
- Is overcrowded with too much moisture from household activities



Mold caused by too little insulation or wind blowing the insulation away

FIXING THE PROBLEM

What needs to be done?

Fixing is a two-step process.

1. First you must find the water source and stop it.
2. Then you must repair, clean, or discard whatever is damaged.

Many times you may do these two steps at the same time, especially if the water source is inside the wall or ceiling.

Keep in mind if you only remove the mold and don't fix the water problem, the mold will return.



Previous ceiling leak needs investigation.

Can I fix the problem myself?

Maybe. If the mold covers 10 square feet (say, a 2 ft. x 5 ft. area), you may be able to fix the problem yourself.



Mold that can generally be cleaned by homeowner or renter

If it is larger than this, contact your housing maintenance department or an outside contractor. Tribes have different policies concerning mutual-help and homeownership units. If your homeownership agreement does not include maintenance support, you may need an outside contractor. Make sure the contractor has experience in removing mold and repairing moisture damage.

How do I clean up the mold?

Some simple steps you can follow include:

- Ask your family members to leave the immediate area
- Temporarily turn off your heaters or air conditioners in the clean-up area
- Wear long pants, long-sleeved shirt, and gloves. Ordinary dishwashing gloves can be used.



Mold damage from leaks at the window

- Wear an N-95 respirator and goggles. (Some people call N-95 respirators "dust masks", they are available at most hardware stores).
- Use a mild detergent such as dishwashing liquid and water solution and scrub the mold off hard surfaces such as tiles, countertops, wood furniture, wood framing, cement, brick, glass, metal, and hard plastic.
- Collect moldy materials such as ceiling tiles and carpet and dispose of it in plastic garbage bags.



Mold in the corner of a closet



Moldy cardboard in the crawlspace

- Clean the room thoroughly. A HEPA-vacuum cleaner is good for cleaning. These vacuum cleaners are designed for fine dust and are available at appliance stores and home centers.
- Removing damaged wallboard may be required and could be best left to experienced people. If you are not qualified to work with electricity, do not remove wallboard (may expose live electrical circuits). Also, if you attempt to remove wallboard, keep in mind there may be much more mold behind the wall. Plan for this ahead of time. If the area gets too big (greater than 10 square feet) stop, seal the area with plastic sheeting and duct tape, and seek immediate assistance from housing or an outside contractor.



Moldy carpet must be discarded.



Rot from moisture that should be reported and/or repaired

- Clean areas that were previously behind the wall with mild detergent.
- Locate any previously hidden moisture sources and repair them.
- Dry all materials that appear wet.
- Make any other repairs that are necessary using new materials that are clean and dry.
- Dispose of all waste in sealed plastic bags.
- Vacuum the area.
- Remove and wash the clothes you were wearing.
- Take a shower.

Cleaning Up Mold – Do’s and Don’ts

Do:

- Remove standing water.
- Be prompt in drying up leaks and spills.
- Keep on top of cleaning, especially in bathrooms, on windows, and under the kitchen sink.

Don’t:

- Touch mold or moldy items with bare hands.
- Get mold or mold spores in your eyes or breathe them in.
- Use fans if mold is already growing.

Can I just spray mold with bleach or paint over it?

No. It’s not a good idea to just kill the mold. It has to be removed, which is best done by thoroughly cleaning or removing mold-damaged materials from the house. Also, the water problem has to be fixed. This is because mold can come back, especially if repairs aren’t made to solve the water problem. Dead mold can cause allergic reactions. Bleach and paints may make the moldy area look better for a little while, but to really fix the problem, you must *remove the mold and stop the water*.

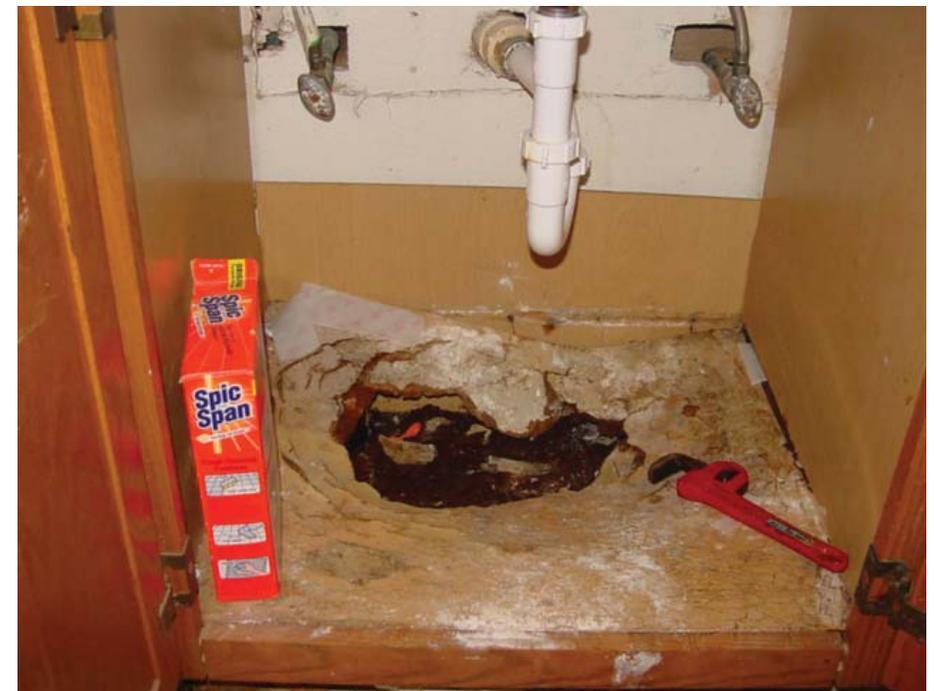
LONG TERM PREVENTION

What can be done inside the house to prevent mold from coming back?

Mold needs air, food, and water to grow. Of these three items, it works best if you control the moisture problem. Then the mold won’t come back. *Fix and repair all leaks as soon as you notice them.*

What else can be done indoors?

- Always use bathroom and kitchen fans. The fans must exhaust outside the house (not in the attic).
- Make sure your clothes dryer vents to the outside.

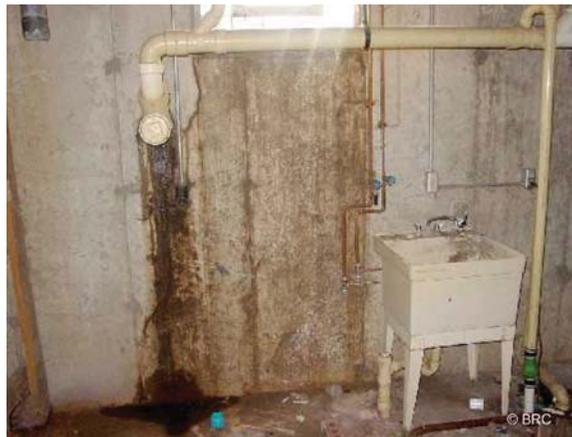


Plumbing leak can cause visible and other damage.

- Use an outdoor clothesline in dry weather.
- Keep windows open during dry, mild weather.
- Clean, vacuum, and dust regularly.
- Use an air conditioner or dehumidifier in hot, muggy weather. Make sure the water draining from the air conditioner is not damaging anything and that the unit is working properly. Check, empty, and clean the dehumidifier as needed.
- Use blinds or washable curtains instead of heavy drapes (open regularly).
- Use washable rugs or leave floors bare instead of having wall-to-wall carpets.
- Store firewood in a dry, sheltered area outside the house.
- Choose washable stuffed toys, wash and dry them often.
- Discard mattresses, furniture, or carpet that always smells musty.



Mold and wall damage from water splashing outside the tub



Water from a window and plumbing leak

- Keep mattresses off the floor.
- Keep closet doors open.
- Keep boxes, couches and other furniture away from outside walls so that warm air from the house can reach the wall.
- Insulate cold water pipes.
- Use storm windows in some climates.
- Open the bathroom window in dry, mild weather.



Good household maintenance is key.

Check for Signs of Mold and Moisture

Is there mold? Do you see . . .

Water stains?	Stains in closet corners?
Blotchy stains in solid patches or dots?	Discolored carpeting?
“Shadow marks” behind furniture?	Do you smell an earthy/musty/moldy odor?

Is there too much moisture? Do you see . . .

Water leaks?	Frost or ice on the window inside?
Warping?	Water on the floor?
Evidence of past water damage?	Rusted or dripping pipes?
Wood or walls that are damp to the touch?	Condensation on windows?
Clothes dryer venting inside the house?	Cracked or peeling paint?
	Firewood drying inside?

Check for Signs of a Water Problem

Do you see . . .

Flooding?*	Leaks around windows or doors?
A backed-up sewer?*	Ponds outside around the home during rainstorms?
A leaking roof?	If you have a sump pump in your basement or crawlspace, is it working properly?
A damp basement?	
A wet or damp crawlspace?	
A persistent plumbing leak?	
Overflow from bath, showers, sinks or toilets?*	

*You should only attempt to fix “clean water” situations. You should not handle water containing raw sewage or water from natural flooding, which can contain disease-causing bacteria.

What can be done outdoors?

- Make the ground slope away from the house to stop puddles from forming against the house during rainstorms.
- Use gutters and downspouts to move water from the roof away from the house.
- Caulk your window and doors.
- Immediately repair damaged roofs, windows, and siding.
- Check for dripping hose bibs.



Mold resulting from an inoperative or unused fan

Where can I get more information?

There are many organizations offering advice. These are some good sources:

U.S. Department of Housing and Urban Development, Office of Native American Programs, "Mold",
http://www.codetalk.fed.us/Mold_and_Mildew_Introduction.htm.

Web page including helpful advice, specific cause and effect examples, and list of links to other valuable sites.

U.S. Department of Housing and Urban Development, Office of Native American Programs, "Mold Prevention and Detection: A Guide for Housing Authorities in Indian Country, Second Edition",

<http://www.codetalk.fed.us/MoldDetection.pdf>

Guidebook including information and many valuable suggestions on mold and moisture in homes for housing providers and residents.

U.S. Environmental Protection Agency, "A Brief Guide to Mold, Moisture and Your Home",
<http://www.epa.gov/iaq/molds/moldguide.html>.

Pamphlet describing basic approaches for dealing with mold. Call the U.S. EPA Indoor Air Quality Information Clearinghouse at (800) 438-4318 for more information.

U.S. Department of Housing and Urban Development, Office of Native American Programs, "Mold Prevention and Detection: A Guide for Maintenance Staff and Housing Counselors in Indian Country."

Guidebook including an overview of mold issues, steps maintenance staff and housing counselors can take to reduce mold, and additional resources.

YOUR RIGHTS AND RESPONSIBILITIES

Who should act, and what can I do to help?

All residents—homeowners, mutual help residents, and renters—are responsible for routine cleaning of the home. It is important for the overall health and safety of you and your family.

If you have a moldy situation in your house that you cannot solve, explain the problem to the housing or maintenance



Dehumidifiers are often effective in keeping basements dry.



A roof leak that resulted in costly damage to the home

department right away. Then, follow up in writing to avoid any misunderstanding. Prompt, cooperative action is key, because delays can lead to more severe and costly damage.

You may be able to purchase renter's or owner's insurance to cover your belongings; however, the terms of the policy determine what is covered. Mold damage is probably not covered, but water damage may be—you will need to contact your insurance company to file a claim. You may need to record the damage using photographs and notes. If possible, adjust your camera to show the date the photos were taken.

If you choose to use outside contractors, check their references, make sure they have experience cleaning up mold, and make certain that they follow the guidelines outlined in the sources listed on page 14.



Indoor clothes drying caused the condensation. Windows should be cleaned and dried regularly.

CONCLUSION

Keeping your house clean and dry will go a long way toward protecting it from mold. If you are careful when cleaning up moldy areas, and stay on top of repairs, you will be successful in controlling mold and in helping to keep your family healthy. Just as important, though, remember that if the problem seems too big, be sure to ask for help. It may take teamwork and cooperation with housing maintenance staff, healthcare providers, and others.



Broken fan and moldy condition that should be reported and repaired