

Microecologies® Mold Clean-up Guidelines for Residents *

Do I Have a Mold Problem?

Where to look

To identify mold, visibly accessible wall and ceiling surfaces (rooms and closets), floors, window trims, mouldings, and built-in cabinetry should be visibly inspected for signs of discoloration, paint damage, or surface irregularity suggesting water damage or mold growth.

Special attention should be focused on surfaces that are more susceptible to water damage including perimeter (window) walls, kitchen and bathroom walls that contain plumbing pipes and fixtures (aka “wet” walls), pipe chases, the walls of closets and rooms that adjoin bathtub/shower enclosures, walls behind radiators, walls behind base mouldings, bathroom walls and ceilings, bathroom vanities, cabinets beneath kitchen sinks, and basement walls and ceilings.

What to look for

Most frequently, the discoloration associated with mold growth is blackish, brownish, or greenish, and the spots of discoloration are somewhat circular and of various sizes which may coalesce into solid mats. Yellowish, goldish, or rust colored jagged-edged areas of discoloration are frequently only water stains, and may not be an indication of mold. The powdery whitish precipitate that often forms on and around cracked and blistered paint on painted plaster surfaces (sometimes called effervescence) is wrongly considered by many building superintendents to consist only of mineral deposits. To the contrary, these precipitates are very likely to contain high levels of fungal and/or bacterial growth.

Is It Safe for Me to Clean the Mold?

If the mold growth covers less than 10 sq. ft. (for example, 2 ft. high by 5 ft. wide), then this mold can generally be safely cleaned by residents if they follow these clean-up *Guidelines*, with the following exceptions:

- *_o If you have allergies, asthma, or sinusitis you should **not** participate in a mold clean-up project.
- *₁ Residents should be cautious about areas of black spots or splotches growing on the paper covering of sheetrock that has been recurrently water damaged and occasionally saturated by flooding, plumbing leaks, or rain water. Such growth has a high likelihood of being *Stachybotrys* (a potentially highly toxic mold), and should be regarded as hazardous when the aggregate affected area is in the 1 square foot range.

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Residents should **not** perform mold clean-up work when probable *Stachybotrys* growth covers an area greater than 1 square foot. Such work should be performed by trained mold abatement personnel in accordance with the NYC HPD ***Mold Decontamination Protocols***.

If your mold growth is more severe than this, then call 311 (in NYC), or 212-NEW-YORK (outside NYC) and ask for NYC Housing Preservation and Development or the NYC Department of Health, or contact a qualified environmental and industrial hygiene professional (www.aiha.org).

Mold Cleaning Protocol

Preparing for a Safe and Effective Clean-up

Before starting your mold clean-up project, be sure you have the following personal protective equipment and cleaning supplies available and protect the work area:

Personal Protective Equipment - available at your local paint/hardware store

- Dust mask
Preferred: HEPA filtered respirator (half-face respirator available at Home Depot)
Minimum: dust mask with 2 elastic straps and cinchable nose piece (N-95)
- Goggles
- Disposable gloves
- Cap to cover hair and ears

The release of some mold spores into the air inside the work area during clean-up can be reduced by approximately 90% if you follow these *Guidelines*, but some release is unavoidable. That's why it's essential that you wear the personal protective equipment listed above.

Cleaning Supplies

- Plastic spray bottle
- Clorox Soft Scrub (liquid paste)
- Paper towels
- Trash bags
- Drop cloths (1 or 2 mil clear plastic sheeting)
- Duct tape and blue tape
- Ladder

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Preparing the Work Area (Preventing Cross Contamination)

- Remove all possessions from within the work area or cover with drop cloths.
- If the mold growth is in the bathroom, empty the bathroom before starting work, and keep the door closed while working.
- If the mold growth is in any other room, isolate the work area by taping drop cloths to the ceiling so that they extend to the floor and form a barrier around the work area. To prevent paint damage, apply blue tape to ceiling, then duct tape to blue tape and drop cloth.

Removing (Cleaning) the Mold

- Spray the discolored surface areas with water before any wiping begins. Wet dust, including mold spores, does not fly.
- Wipe the discolored surfaces with wet paper towels and Soft Scrub, a bleach-containing liquid paste cleanser, which contains an abrasive that enables the removal of the top layer of paint which the mycelia (similar to a root system) of the mold has probably grown into. Dispose of the paper towels in trash bags. Rinse if necessary with wet paper towels.

Cleaning Up the Work Area

- Wipe all surfaces within the work area with an appropriate cleaning product. Unless you have a HEPA filtered vacuum, do not vacuum inside the work area because mold spores and bacteria will be released in the vacuum exhaust.
- Spray the inside surfaces of the plastic sheeting barriers and drop cloths with water, and then remove, folding the damp side inward.
- Dispose of used paper towels, plastic sheeting, and disposable masks, gloves and caps in a tightly sealed trash bag.
 - Place the clothes you wore for the work into the laundry, and take a shower.

How Can I Safely Remove Contaminated Ceiling Tiles?

Water damaged ceiling tiles generally display a gold to brownish discoloration if the water damage is an isolated event. With recurrent water damage, however, a black center to the discoloration frequently appears. There is a high probability that the black discoloration is *Stachybotrys*, a highly toxic black mold. These cellulose containing tiles are perfect amplification sites for toxigenic fungi. So, for the sake of your own health and occupant health, don't take chances when removing water damaged ceiling tiles. This should be a **zero dust release** procedure to avoid possible acute exposures. Carefully cover the visibly discolored area with a piece of poly sheeting or other solid material that has been cut to size and duct taped around the perimeter. Then, adhesive-side up, press the cover

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over the discolored area. Then, approaching the now-covered tile by removing an adjacent clean tile, repeat the procedure by covering any discolored area on the top side of the tile. Then, you can safely remove the contaminated tile, which must be turned at a diagonal for removal.

When Mold Can't Be Cleaned, Can It Be Encapsulated?

What Not To Do

- Damp, water damaged or moldy walls should **never be covered with sheetrock** (or greenboard), which is like giving an invitation to *Stachybotrys* to grow in your home.
- Molds literally eat paint, so painting over mold is like adding fuel to a fire, and most anti-fungal paint additives are ineffective. If surface is damp or wet, the mold will quickly grow through the new paint, and the problem will become more severe. If the roots of the mold (called mycelia) have grown into the paint, which often occurs, then the discolored paint needs to be completely abraded off or scraped off before the wall or ceiling is repainted. **Warning: lead paint may be released when scraping or cleaning mold.** Residents should contact NYC DOH for lead paint removal guidelines, and painting contractors should be required to follow these *Guidelines* which include isolating the work area, wet-scraping, and proper clean-up. Lead Check swabs, available at better hardware stores, can be easily used by residents to test for lead paint.

What You Can Do

If mold is not safely cleanable (more than 10 sq. ft., dense growth on areas less than 10 sq. ft., or black mold growing on the paper covering of sheetrock), and there is likely to be a delay in properly removing the mold in accordance with the NYC DOH *Guidelines on Assessment and Remediation of Fungi in Indoor Environments* (available online at www.nyc.gov/health and click on "M" for mold in the link "Health topics A-Z"), then residents have two options for encapsulating the mold to prevent the release of spores into the indoor air:

- There is a specially formulated high viscosity encapsulant paint called Fosters 40-20 that is highly effective in killing the existing mold and is highly resistant to mold regrowth or grow-through. Fosters 40-20 is available through Bullseye Environmental (800-692-8557). Fosters 40-20 is a low toxicity product. However, it emits a typical paint odor until cured which normally requires approximately 48-72 hours. Therefore, areas being encapsulated should be well ventilated. Persons with known sensitivities to paint odors/vapors should not re-occupy the area until odors are no longer discernible.
- Alternatively, as a **temporary** measure, the moldy walls and ceilings can be covered with poly sheeting (drop cloths or trash bags) affixed with duct tape around the perimeter. This method has a disadvantage in that the mold and bacteria growth under the poly sheeting may be

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amplified if the surface is wet. However, this disadvantage is outweighed by the importance of preventing further occupant exposure to mold spores, mold fragments and bacteria.

- If you need further advice on a mold problem after reading these *Guidelines*, you can call Microecologies® at 212-755-3265.

The “Original” Mold Inspection and Clean-up Guidelines

Leviticus 14: 33-50 Laws of purification and atonement

The Lord spoke to Moses and Aaron and said: When you have entered the land of Canaan which I give you to occupy, if I inflict a fungous infection upon a house in the land you have occupied, its owner shall come and report to the priest that there appears to him to be a patch of infection in his house. The priest shall order the house to be cleared before he goes in to examine the infection, or everything in it will become unclean. After this the priest shall go in to inspect the house. If on inspection he finds the patch on the walls consists of greenish or reddish depressions, apparently going deeper than the surface, he shall go out of the house, and standing at the entrance, shall put it in quarantine for seven days. On the seventh day he shall come back and inspect the house, and if the patch has spread in the walls, he shall order the infected stones to be pulled out and thrown away outside the city in an unclean place. He shall then have the house scraped inside throughout, and all the daub they have scraped off shall be tipped outside the city in an unclean place. They shall take fresh stones to replace the others and replaster the house with fresh daub.

If the infection reappears in the house and spreads after the stones have been pulled out and the house scraped and redaubed, the priest shall come and inspect it. If the infection has spread in the house, it is a corrosive growth; the house is unclean. The house shall be demolished, stones, timber, and daub, and it shall all be taken away outside the city to an unclean place. Anyone who has entered the house the time it has been in quarantine shall be unclean till evening. Anyone who has slept or eaten a meal in the house shall wash his clothes. But if, when the priest goes into the house and inspects it, he finds that the infection has not spread after the redaubing, then he shall pronounce the house ritually clean, because the infection has been cured.