

Water Damage = Mold Growth

Matthew Yurina
Mold Abatement Specialist
Trask Research
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How does mold grow?

Molds reproduce by spores, which are microscopic cells that are ubiquitous in the air around us, both indoors and out. They're as common as dust particles. What spores require in order to begin growing into visible mold is moisture. Any moisture accumulation whatsoever can initiate mold growth; when any organic surface remains damp for more than 24 hours, mold can start to develop. And mold literally feeds on the surface it grows on, slowly eating away until it destroys these materials utterly.

The majority of mold problems around the country have long been due to water line leaks, poor ventilation that leads to humidity condensation, or improper exhaust piping from kitchens, bathrooms and laundry rooms, but these are all individual, isolated sources for mold growth. Flooding on the other hand puts immense amounts of water into homes and leaves it there, sometimes for weeks on end. The flood water will not only cause mold growth, but brings with it countless microorganisms and chemicals that can accelerate mold growth and create toxic fumes and spread disease. In cases like this, there is no way at all to prevent mold growth. Mold should be accepted as inevitable, and steps should be taken to protect those who're returning home after a flood, or who're present to clean up the flood water.

How do I protect myself from mold?

When returning to any structure that's been flooded or has sustained significant water damage the very least protection one should be wearing is: P100 respirator, gloves, and goggles. In cases where flood water has kept buildings damp for more than two to three days, full body coveralls should be worn as well when cleaning or removing water damaged or moldy materials.

Working in a water damaged environment can be physically and mentally stressful. Extensive water damage of any kind can allow millions upon millions of microorganisms into a structure, making these areas extremely harmful to human beings. Before attacking a mold remediation project a plan for safety should be put in place, and the job should be done carefully and in moderation. Working in full body coveralls and respirators is physically challenging, and the remediators will need to pace themselves, taking regular breaks to cool down and exchange respirator cartridges as necessary.

It's understandable that people will need a place to stay, or can't afford to pay for a hotel for weeks on end if the remediation requires completely gutting a home. Instances like this can cause many people to jump into remediation quickly, using bleach to try and

clean the mold so that they can remain living in the home. Bleach is not a mold killer and its application around the home will be more destructive than helpful. Bleach cannot penetrate to the tiny roots of mold, but the water portion of the solution will, thus creating more mold growth in the future. There isn't an hundred percent chance this will happen immediately, but when it looks like the mold is gone, and the rebuilding begins, reinstalling drywall, insulation and repainting will give the mold food for growth, and it's then practically inevitable that the mold will return.

How do I clean up mold?

The mold infested area should be isolated as close to the source as possible, so when a whole house is involved it may be necessary to section off certain areas with polyethylene sheeting, creating a containment area to prevent the spread of spores. All standing water must be pumped out or sucked up immediately. Water damaged materials need to be dried out quickly and thoroughly before mold has time to become extensive enough to cause a total loss of the property. Water damaged sheetrock, insulation and any other porous material that aren't salvable need to be removed, bagged up safely in polyethylene sheeting and disposed of without spreading mold spores or other potentially harmful microorganisms to other areas.

All visible mold must be physically removed from the area. A fungicide should be either fogged or sprayed after mold removal in order to kill mold roots and airborne mold spores. This will insure that mold cannot begin growing again. The entire flood water damaged area should be treated at least twice with an EPA registered fungicide, allowing time to dry thoroughly between applications.

There are many products on the market geared toward eradicating mold, no matter the species. When in doubt be sure to check with the product's manufacturer to find out what chemicals are in the product and if it's safe for your particular application. While good strong chemical fungicides are the best for killing and preventing mold growth, some people are more chemically sensitive than others, and should be clear of the area being treated until the place is ventilated and the fungicide has dried thoroughly.

Once fogging, spraying, or both with the fungicide has taken place at least twice, the area should be tested to verify that airborne spores are once again at a reasonable level. Only then can a fungicidal sealant be applied and rebuilding can begin.

Is Killing the Mold Enough?

Safety is and always will be the number one concern when dealing with mold. There's no such thing as going too far when trying to rectify a mold problem. One should always err on the side of caution. In small mold contamination situations killing the mold alone and applying a fungicidal sealant can usually solve the problem. In areas of heavy water damage where mold is extensive, it's strongly advised to make use of HEPA air filtration, or a good HEPA grade vacuum to remove or suck up live and dead mold spores. Even dead mold spores can be a health concern, especially if the spores are present in the air.

Regardless of the species of mold an abundance of airborne spores, either dead or alive, can create an unhealthy atmosphere, aggravating anyone with asthma, immune deficiencies, respiratory disorders or general allergies to mold.

To summarize mold contamination will inherently make light of the detail that's involved in its removal. This aside, mold requires moisture to grow and thrive, and the more moisture present for long periods of time will cause mold growth. Mold growth means mold spore production and even more mold growth. As long as moisture remains, mold has the opportunity to grow, destroy walls, floors, etc. and create health problems for the inhabitants of the area. This isn't to suggest people should panic about mold and let it depress them into inaction. It means mold should be taken seriously, moisture should be controlled, and when mold growth does occur, it must be handled in a safe and thorough manner. When in doubt, proceed with all caution, and consult a certified mold professional for support.