



The Ultimate Guide to Residential Mold

What to do When Mold Hits Home



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MOLD BASICS

Mold -- that scary yet oftentimes vague term. Of all the environmental hazards encountered during a home inspection, mold has proven to be one of the most common and difficult to manage, and it can plague your home throughout the year. But what exactly is mold, and what does it mean for homeowners?

Made up of tiny spores, mold is often invisible to the naked eye, yet it's alive and reproducing all around us. Mold is part of our natural environment, and circulates through the air. Outdoors, mold is an important factor in the natural decomposition of organic matter like fallen leaves and trees, and it will thrive anywhere there are humid conditions and available cellulose -- or plant material -- for it to feed on. Indoors, however, mold is very dangerous and will grow quickly in its ideal conditions.

What kind of environment do mold spores prefer?

- Ambient temperature of around 68 degrees Fahrenheit
- Dim lighting
- Poor air circulation.
- Cellulose, or plant material

Inside the home, mold tends to feed on materials like sheetrock, ceiling tiles, wallpaper, carpeting, wood, adhesives, paint, upholstery and fabric.

Under the right conditions, spores begin reproducing within 24-48 hours after they have landed on an item and will fully colonize in 1-12 days. These spores are very difficult to destroy, and they often grow back even after the mold source is gone and can only be treated by removing both the mold itself and the moisture in the environment.

HEALTH RISKS

Dangers to a person's health come when mold spores become airborne in large numbers, often overloading the immune system and exacerbating respiratory sensitivities. Allergic reactions can occur, bringing with them symptoms like wheezing, coughing, irritated eyes, nasal and sinus congestion, throat/ skin

While allergic reactions are the most common symptoms, infants, seniors and adults with previously compromised immune systems can be susceptible to very serious complications.

While researchers are still studying mold's effect on our health, the CDC has already released several statistics:

- 4.6 million asthma patients (21% of asthma cases) in the United States are attributed to mold and damp air conditions.
- 4.6 million asthma patients translates to approximately \$3.5 million in health bills annually.
- Studies show that about 50% of homes have some form of ongoing or growing water damage or dampness.

AVOIDING ESCALATION

Structural

Mold problems in the home are often those that can quickly lead to bigger issues down the road. Hidden mold, not easily seen or noticed, can often be deeply problematic because it is not quickly discovered and addressed.

Hidden mold compromising your home's structural characteristics is commonly found on the:

- Back side of drywall, wallpaper and paneling
- On the topside of ceiling tiles
- Underside of carpets
- Inside walls around pipes with leaking or condensing pipes
- Surface of walls behind furniture where condensation builds
- Inside ductwork and roofing materials

These small hidden problems can grow into major problems causing serious structural damage by breaking down structural material. Infected areas **MUST** be removed immediately.

Personal Property

Personal property inside the home can also be ruined by mold. When mold spores have attached they are nearly impossible to clean and personal items infected usually need to be disposed of immediately.

HVAC

It is imperative that your heating and ventilation systems are thoroughly cleaned. Spores use the systems as gateways to travel into more areas of your home. Make sure you check not only the area around the system, but each ventilation component individually to make sure your home is being properly protected.



At this point you've accepted you have mold in your home and that it needs to be removed. Deciding whether it is safe to remove the mold yourself is dependent on a number of factors.

For years, homeowners were told that simply scrubbing away the visible spores with bleach would solve the problem, but that's not actually the case. It's true bleach kills the spores, but it doesn't actually remove them from the surface. Removal, according to health researchers, is the only real cure.

How widespread is the mold?

If the moldy area is less than about 10 square feet, you should be safe to remove the mold yourself. If the area is larger than this, a professional should do the job. Make sure the contractor you hire not only has experience with removing areas of your size, but also follows the guidelines outlined in the US Environmental Protection Agency's Mold Remediation Guide.

Where is the mold located?

If the mold is located on non-porous, surfaces like glass, metal, tile,

tubs, or sinks, you can do the job yourself. If mold is in your heating, ventilation, and air conditioning system you should hire a contractor. The gray area lies with hard to clean spots such as your carpet or walls, as it's usually best to remove the old materials to cut off the mold's growth source.

How is your current health?

If you aren't facing any current health problems that are likely to be exacerbated by exposure to mold, you should be up for the job. However if you are already experiencing mold-related symptoms or have a medical condition that may be worsened by exposure, call a contractor.

If you decide to remove the mold yourself...

- Using a stiff brush, scrub the mold from nonporous surfaces with bleach, water and detergent.
Note: DO NOT use any detergent or bleach containing ammonia - the combination with mold can produce a poisonous gas
- Completely dry the area immediately and discard all moldy materials
- Avoid exposing yourself or others to the mold by wearing a long sleeve shirt and pants, goggles, plastic or rubber gloves, and an N-65 respirator as a precaution against airborne mold.
- Absorbent or porous materials like ceiling tiles or carpet may have to be replaced, as mold will often be difficult or impossible to remove completely. Seal the discarded materials in plastic bags to avoid spreading the mold.

PREVENTION

There are a number of preventative measures you can take to keep your home from becoming the one in every four homes that faces a mold problem.

The most important preventative measure you can take is to act quickly. Dry all water-damaged areas and items within 24 to 48 hours. All mold needs moisture to grow, so when water leaks or spills occur indoors, don't wait, act immediately. The key areas to watch over here are your kitchen, bathrooms, attic and basement.



Tip: To keep your home dry and healthy, recommended indoor humidity levels are below 60%. (Ideal level: 30% to 50%)

If you notice condensation or moisture collecting on your windows, walls, or pipes, dry these wet surfaces quickly.

Condensation can be a sign of high humidity levels. You can measure your home's relative humidity with an inexpensive humidity meter. Air conditioning, dehumidifiers, bathroom ventilation fans or simply opening a window to allow damp air escape can help reduce the humidity level in your home.

Evaluating and taking care of your property plays a part in preventing mold growth as well. Make sure the ground around your property slopes away from the foundation so water does not collect or enter your home at the base of it's foundation. Keep air conditioning drip pans clean and drain lines unobstructed so water can flow out. Clean and repair roof gutters regularly. Any part of your home that is prone to water leaks or dampness, is an area to look out for mold growth.

MITIGATION

1. Fix the water or humidity problem.

If you start to notice a musty smell in your home, or start experiencing common cold symptoms such as coughing, nasal congestion, or headaches, chances are you have mold in your home. On average, professional mold remediation can cost anywhere from \$500 - \$6,000 depending on the size of the problem. If it isn't caught early, and the source problem is not fixed in time, remediation costs can skyrocket to tens of thousands of dollars. That's not counting the impact on your home and personal items. Be on the lookout for leaks and condensation, and repair any issues as soon as they're discovered.

2. Have a mold inspector examine the root and extent of the problem

A mold inspector can run tests to determine the type and severity of your mold problem, and refer you to a mold remediation company if necessary.



Tip: Look out for mold inspectors who want to remove the mold themselves

Having one person analyze the mold and another remove it will get you a second opinion while avoiding a conflict of interest.

Make sure the inspector you hire also has the appropriate industry credentials and experience in the field including up to date certifications and positive customer reviews.

Once your mold inspector has visited your home and collected samples, he or she will submit them to a laboratory for testing. You'll receive a lab report detailing the inspection results.

The inspection process should take around 2-6 hours, depending on the size of the home and the nature of the problem, and cost about \$100/hr. Your inspector can also tell you whether it is safe for you to remove the mold yourself, or if you need an expert to remove it.

Home testing kits available for purchase, but there are some drawbacks:

- Home testing kits will always test positive for mold, because spores are always circulating through the air - but they cannot signify whether a sample of air has a level of spores beyond what's considered normal or safe.
- They cannot confirm the presence of dead mold spores - which, like live spores, still produce allergens.
- They cannot determine baseline levels of mold in your home to compare to other non-mold infected areas, meaning a home testing kit can't distinguish between normal and unsafe mold levels.



REMIATION

A mold remediation professional will begin by removing all mold-contaminated and water-damaged materials from the affected area. Then, they will clean and disinfect all walls, carpets and personal items that were within the vicinity of the mold.

Depending on the extend of the damage, drywall and studs may have to be replaced.

Finally, the remediation professional will vacuum the area with a HEPA filtration system to remove particulates from the air and all surfaces.

- If you're not sure whether all the mold in your home was removed, you can ask your mold inspector to conduct a follow-up test.
- Many homeowners opt for a post-remediation inspection before taking the time (and spending the money) to replace expensive fixtures and flooring.
- Knowing your home is clean and healthy can give you the peace of mind you need to relax and feel comfortable in your surroundings.