

Mold and Mold Remediation

Molds are ubiquitous in nature, and mold spores are a common component of household and workplace dust. However, when spores are present in large quantities, they can be a health hazard to humans, potentially causing allergic reactions and respiratory problems.

Molds and fungi are found everywhere inside and outside, and can grow on almost any substance when moisture is present. When molds reproduce they make spores, which can be carried by air currents. When these spores land on a moist surface that is suitable for life, they begin to grow. Mold is normally found indoors at levels that do not affect most healthy individuals.

Because common building materials are capable of sustaining mold growth, and mold spores are ever-present, mold growth in an indoor environment is typically related to water or moisture indoors.

Mold growth may also be caused by incomplete drying of flooring materials such as concrete. Flooding, leaky roofs, building maintenance problems, plumbing problems can all lead to mold growth inside homes, offices, clubhouses, and other areas humans gather.

For significant mold growth to occur, there must be a source of water (which could be invisible humidity), a source of food and a substrate (material) capable of sustaining growth. Common building materials, such as plywood, drywall, furring strips, carpets and carpet padding are food for molds. In carpet, invisible dust and cellulose are the food sources. After a single incident of water damage occurring in a building, molds grow inside the walls. The right conditions, such as high humidity, can activate a mold bloom even after a long period of being dormant after the event has occurred.

If there are mold problems in a unit or home only during a certain time of the year, then it is probably either too air-tight or too drafty. Mold problems occur in airtight homes more frequently in the warmer months (when humidity reaches high levels inside the house and moisture is trapped) and occur in drafty units or homes more frequently during the colder months (when warm air escapes from the living area into unconditioned space and condenses). If a house is artificially humidified during the winter, this can create conditions favorable to mold. Moving air may prevent mold from growing since it has the same effect as lowering humidity.

Assessment

The first step in an assessment is to determine if mold is present. This is done by visually examining the premises. If mold is growing and visible this helps determine the level of remediation that is necessary. If mold is actively growing and is visibly confirmed, sampling for specific species of mold is necessary.

These methods, considered non-intrusive, only detect visible and odor-causing molds. Sometimes more intrusive methods are needed to assess the level of mold

contamination. This would include moving furniture, lifting and/or removing carpets, checking behind wallpaper or paneling, checking in ventilation duct work, opening and exposing wall cavities, etc.

Careful detailed visual inspection and recognition of moldy odors should be used to find problems needing correction. Efforts should focus on areas where there are signs of liquid moisture or water vapor (humidity) or where moisture problems are suspected. The investigation goals should be to locate indoor mold growth to determine how to correct the moisture problem and remove contamination safely and effectively.

Remediation

The first step in solving an indoor mold problem is stopping the source of moisture. Next is to remove the mold growth. Common remedies for small occurrences of mold include:

- *Sunlight
- *Ventilation
- *Non-porous building materials
- *Household cleansers

Significant mold growth may require professional mold remediation and removal of affected building materials. As this issue has become more and more prevalent, different states have different requirements for licensing, certifying and qualifying mold remediation technicians. For instance, in Florida, the legislature recently passed extremely stringent standards for a Certified Mold Remediator – it takes 5 years before one can be certified. There are Certified Mold Inspectors, Certified Mold Remediators, and Certified Environmental Hygienists, all professionals that provide services relating to mold problems. While some mild instances of mold may be able to be addressed in a do-it-yourself way, if in doubt, a professional should be engaged for this purpose. The preparation of the area for the removal of the material, the disposal of the material removed, the personal precautions that are required, generally exceed those of a maintenance worker or handyman.

If in doubt, call a professional.