



Mold Facts:

- Approximately 50% of homes contain mold
- Mold can spread and develop on any surface
- There are over 10,000 species of mold, but only 5 of them are commonly found indoors
- The antibiotic penicillin is petrified mold
- Blue cheese has the mold Penicillium added to it so that the final product is spotted or veined throughout with blue, blue-gray, or blue-green mold
- Mold destroys more wood than fires, floods and termites combined
- Christmas tree allergies are caused by mold released into the air by the tree
- Mold spores cannot be eliminated from indoor environments. One can only control moisture to prevent spore growth.

What is mold?

Molds are a natural part of the environment, but mold growth indoors is an abnormal condition resulting when there is excessive moisture infiltration and accumulation, particularly if the moisture problem remains undiscovered or unaddressed. There is no practical way to eliminate all mold and mold spores indoors. However, indoor mold growth can be controlled by controlling moisture. Exposure to mold can occur when airborne mold particles, mostly spores and fragments, are inhaled. We breathe in mold spores and fragments every day, indoors and out. Usually these exposures do not present a health risk. However, health problems may result when people are exposed to large amounts of mold. Inhaling excessive quantities of airborne mold particles, fragments or spores may lead to allergic illness, trigger asthma, cause respiratory infections, or may bring about toxic effects from certain chemicals in the mold cells.

How can I prevent mold growth?

Mold growth in homes and other buildings is an indicator of excess moisture intrusion and accumulation often caused by design or construction defects, ineffective maintenance and repairs, and occasionally occupant activities. Sources include floods, roof leaks, problems with drainage and plumbing and include occupant-generated sources. A less obvious source of moisture is the effect of temperature gradients (temperature differences), especially in locations where relatively warm and moist air comes in contact with relatively cool surfaces. These conditions can cause water vapor to condense on building surfaces, just as it does on a glass of ice water on a warm, humid day.

Most molds must get their food from the environment, living and feeding on dead organic matter. Many building components and contents are excellent food sources for mold, such as wallpaper glue, wood, greases, textiles, and organic matter found in dust.

Temperature also affects mold growth. Different types of mold have minimum, optimum and maximum temperature ranges for growth. Many fungi grow well at temperatures between 60°F and 80°F, which are also ideal temperatures for human comfort.

Cleaning and eliminating mold

The first step in addressing any mold growth problem in a building is identifying and correcting moisture source(s). If moisture problems are not corrected, then any mold cleanup or removal that takes place will most likely be only a short-term solution; at some point the mold growth will recur. It is critical to control moisture at the beginning, during, and at the end of a mold-growth removal project.

One of the most common misconceptions is that mold can be removed by spraying the surfaces with products such as disinfectants, biocides or cleaners. That will not take care of the problem because the allergenic/toxic properties of mold are not removed by using such products. Whether mold spores and other parts of the mold are living or dead, when they get into the air, they still present a health risk to exposed individuals.

While disinfectants and biocides may kill mold spores and take away their ability to reproduce, these products should not be used alone in addressing a mold-growth problem. Either the

MOISTURE/MOLD CONTINUED...



5 Common Household Molds:

- **Alternaria** mold is usually found in buildings that have suffered some kind of water damage. It can appear black, gray, or dark brown and has a wooly or down-like texture
- **Aspergillus** is the most common type of household mold, especially in warmer climates. It can be grey, brown, yellow, green, white, or black in color. Aspergillus mold causes not only allergic reactions, but also respiratory infections and inflammation of the lungs in people with weak immune systems
- **Cladosporium** can grow in lower temperatures than other kinds of mold. It has a characteristic black or olive-green color and may trigger hay fever and asthma symptoms
- **Penicillium** is usually found on carpeting, wallpaper, and insulation. It looks blue or green and produces strong musty odor
- **Stachybotrys chartarum**, also known as “black mold”, produces toxic compounds called mycotoxins that can cause severe health problems, such as respiratory problems, asthma attacks, chronic sinus infections, fatigue, and depression. The toxic black mold has a characteristic musty odor and appears only on surfaces that have been in prolonged contact with water.



Cleaning and eliminating mold cont...

mold must be completely removed from the affected material, or the mold-contaminated material must be completely removed from the building.

In determining which materials can be cleaned and what should be removed, the two important factors are how porous (absorbent) the material is and how extensive the mold growth is. Generally, non-porous materials (such as metals, glass and hard plastics) and semi-porous materials (wood, plaster and concrete) that are visibly moldy but structurally sound can usually be cleaned and reused. Moldy porous materials (carpeting, wallboard, ceiling tile, wallpaper, fabric, upholstered furniture, mattresses) should usually be discarded, since they absorb and hold moisture, may be internally moldy, and cannot be completely cleaned and thoroughly dried.

Cleanup and mold removal activities can expose people to mold particles and other hazards, so it is important to wear protective equipment and follow procedures safely

Additional information

Union County Environmental Health does not have the legal authority to address mold issues in private residences. Landlords and tenants share responsibility for taking care of their property and controlling excess moisture. The landlord is only required to handle problems that the renter would not have caused.

If you feel the underlying cause of mold in your home is beyond your control, contact your landlord.

If you have exhausted all efforts trying to resolve the issue with the landlord, and you are located within the city limits of Monroe, contact the Code Enforcement department at (704) 282-4520. The City of Monroe Code Enforcement Department sets certain standards for private dwellings. For more information, please refer to the Minimum Housing Standards brochure on the City of Monroe’s website at: <https://www.monroenc.org/Departments/Planning-Development/Code-Enforcement>



You can also contact NCDHHS Occupational and Environmental Epidemiology at (919)707-5900 or visit: <https://epi.dph.ncdhhs.gov/index.html>



The UNC Center for Environmental Health and Susceptibility and the UNC Institute for the Environment created an informative webinar addressing mold and moisture in homes. To view, see link below:

https://www.youtube.com/watch?v=f0km28sL_o3Q&feature=youtu.be



If you notice mold in a regulated facility such as a school, nursing/adult care home, lodging facility, or child care center please contact Union County Environmental Health at (704) 283-3553 or visit the complaint form at: <https://lfportal.unioncountync.gov/Forms/EHComplaintForm> or send us an email at unioncountyh@unioncountync.gov