Mold Basics

Introduction

Molds produce tiny spores to reproduce. Mold spores waft through the indoor and outdoor air continually. When mold spores land on a damp spot indoors, they may begin growing and digesting whatever they are growing on in order to survive. There are molds that can grow on wood, paper, carpet and foods. When excessive moisture or water accumulates indoors, mold growth will occur, particularly if the moisture problem remains undiscovered or ignored. There is no practical way to eliminate all mold spores in the indoor environment; **the way to control indoor mold growth is to control moisture and humidity.**

The key to mold control is moisture control. It is important to dry water-damaged areas and items **within 24-48 hours to prevent mold growth**. If mold is a problem in a building, remove the mold, wet materials and the excess water. Fix leaky plumbing or other sources of water. Clean and kill mold on hard surfaces with QwikTreat® MoldStop™ Hard Surface Disinfectant (following label instructions). Absorbent (that is porous) materials (such as fiberglass insulation, fiber duct board, ceiling tiles and carpet) that become wet or moldy must be replaced. Treat the replacement duct work and the surrounding area with QwikTreat® Porous Duct Sealant with Biocide.

Black Mold

Black Mold, also known as **Stachybotrys Chartarum (atra)** is a greenish-black fungus found worldwide that colonizes particularly well in high-cellulose material, such as straw, hay, wet leaves, dry wall, carpet, wall paper, fiber-board, ceiling tiles, thermal insulation, etc. Back Mold (**Stachybotrys Chartarum)**, before drying, is wet and slightly slimy to touch. There are about 15 species of Stachybotrys found worldwide.

This toxic mold grows in areas where the relative humidity is above 55%. This type of fungus does not grow on plastic, vinyl, concrete products, or ceramic tiles. **It is not found in the green mold on bread or the black mold on the shower tiles.**

The problem is that this mold can be found not only where there has been flooding, but also in numerous minor water releases due to plumbing failures, condensate overflow, condensation from cold refrigerant or water lines, and water leaks and accidental water spills that were not cleaned up within 48 hours. This toxic mold concern could also be a problem where fires occurred, due to the massive amount of water normally used to extinguish a building fire.

Visual Mold Detection

There may be a visual appearance of black mold in a visible water damage area, but be aware that there may be hidden water damage and mold (i.e., behind dry wall, under organic thread carpets). One should suspect hidden mold if a building smells moldy, even if the source cannot be seen, or if there has been water damage and residents are reporting health problems. Humidifiers and condensate drain pains provide both a growth medium and a distribution system for mold and mildew and should always be inspected, cleaned with QwikTreat® MoldStop™ Hard Surface Disinfectant. QwikTreat® Pan Tablets should be used to prevent scum build-up in the condensate pan

or clogging of the condensate drain line (follow all label directions). Consider adding a QwikTreat® Tablet Dispenser.

Hidden Mold

In some cases, indoor mold growth may not be obvious. It is possible that mold may be growing on hidden surfaces, such as the inside of duct work that is wet, the back side of dry wall, wallpaper, or paneling, the top of ceiling tiles, the underside of carpets and pads, etc. Possible locations of hidden mold can include pipe chases and utility tunnels (with leaking or condensing pipes), walls behind furniture (where condensation forms), condensate drain pans inside air handling units, porous thermal or acoustic liners inside ductwork, or roof materials above ceiling tiles (due to roof leaks or insufficient insulation). Some building materials, such as dry wall with vinyl wallpaper over it or wood paneling, may act as vapor barriers, trapping moisture underneath their surfaces and thereby providing a moist environment where mold can grow. It is important that building materials be able to dry. Moisture should not be trapped between two vapor barriers or mold may result.

Investigating hidden mold problems may be difficult and require caution when the investigation involves disturbing potential sites of mold growth (be sure to use personal protection equipment). For example, the cleaning of moldy air ducts can lead to a massive release of spores from mold growing in the ducts, and for this and other reasons, moldy porous air ducts should always be replaced by a professional and not cleaned.

When addressing mold problems, remember to address the source of the moisture problem, or the mold problem will simply reappear. Remember to check for high humidity and condensation problems as well as actual water leaks, maintenance issues, and HVAC system problems.

Mold Propagation

Molds can be found almost anywhere. They can grow on virtually any organic substance, as long as moisture and oxygen are present. There are molds that can grow on wood, paper, carpet, foods, and insulation. When excessive moisture accumulates in buildings or on building materials, mold growth will often occur, particularly if the moisture problem remains undiscovered or ignored. It is impossible to eliminate all molds and mold spores in the indoor environment. However, mold growth can be controlled indoors by controlling moisture indoors.

Molds reproduce by making spores that usually cannot be seen without magnification. Mold spores waft through the indoor and outdoor air continually. When mold spores land on a damp spot indoors, they may begin growing and digesting whatever they are growing on in order to survive. Molds gradually destroy the things on which they grow.

Many types of molds exist. **All molds have the potential to cause health effects**. Molds can produce allergens that can trigger allergic reactions or even asthma attacks in people allergic to mold. Other molds are known to produce potent toxins and/or irritants. Potential health concerns are an important reason to prevent mold growth and to remediate/clean up any existing indoor mold growth.

Since mold requires water to grow, it is important to prevent moisture problems in buildings. Moisture problems can have many causes, including uncontrolled humidity.

Some moisture problems in buildings have been linked to changes in building construction practices during the 1970s, 80s, and 90s. Some of these changes have resulted in buildings that are tightly sealed, but may lack adequate ventilation, potentially leading to moisture buildup. Building materials, such as drywall, may not allow moisture to escape easily. Moisture problems may include roof leaks, landscaping or gutters that direct water into or under the building, and un-vented combustion appliances. When mold growth occurs in buildings, adverse health problems may be reported by some building occupants, particularly those with allergies or respiratory problems. Caution should be used to prevent mold and mold spores from being dispersed throughout the air where they can be inhaled by building occupants.