

# Mid year newsletter

## Check list for Moisture/Mold trouble spots

**Basement** - Many paints used for concrete walls/basements can sometimes be hosts for molds. If there is no paint the mold will take longer to grow. In homes with basements 40% of moisture comes from the basement.

**Bathroom** - Does it smell musty or damp ? If so check the walls for signs of water intrusion or a plumbing leak. Check caulking around tub/showers. Check for proper ventilation. An open window may not be enough, you may have to install an vent fan exhausting through the roof, to the exterior. This is vital for moisture control.

**Carpeting** - Check back side of carpeting, tack board and thresholds - especially in areas s/a basements or slab flooring that's exposed to moisture.

**Windows** - Windows are a catch basin for water. Make sure the window weep holes are open and clean.

**Foundation** - Foundations are porous and do absorb water from the outside soil. Don't let efflorescence fool you into thinking you have mold. This salt-like substance, however, is a sign that there is a moisture problem.

**Chimneys**- (for a furnace or water heater) -- This is another high humidity hot spot that can lead to mold problems. Slight debris buildup or if there's a blockage in the chimney, gas that's being burned is not getting out, that carbon monoxide is getting back in the house, If there's a sudden moisture problem, it's sometimes related to something collapsing inside the chimney that causes a blockage. It's best to have a professional sweep your chimney on a regular basis.

**Walls** - For peeling paint, deteriorated siding, rotted window sills, rotted window trim or door trim, brick-stone-mortar damage, rotted sheathing on the roof rotted framing members. Foundation walls, look for holes, mortar joints, surfaces, paint, and collapsing window wells.

**Roof Surfaces** - Wet or rotting sheathing, rafters, eaves and soffits are what you want look for it on the roof.

**Gutters** - Make sure your gutters are always clean and free of debris to eliminate any backups of water that can leak into the hose. Tip: Gutter guards are great for keeping debris out of your gutters. Also, make sure the downspouts are clean and clear at all times for proper drainage another good idea to check the storm drains to make sure they are working properly.

## **Mechanical Systems** (plumbing, air conditioning, etc.) --

1. Plumbing -- Be sure to look for leaks around you water-service lines, waste stacks and lines, tubs, sinks, toilets, water heaters, clothes washers, garbage disposals and dish washers. Check for any broken fixtures or careless connections.
2. Sewer and Storm Water System -- Check for backup from dogged or broken water lines around the house, along with sump-pump failures.
3. Heating/Cooling/Air Conditioning/Venting -- Look for leading or corroded pipes, heat ducts that can act as a humidifier driving moisture vapor into the house, open cold air returns that run into the basement (can carry mold spores and moisture from the basement into the living spaces), heat ducts in exterior walls, air-conditioning units (a common home for moisture problems) and all the vents in your home. Note: It's best to have vents in your bathroom and kitchen to release the moisture form showering and cooking respect respectively to the exterior.

### **4. Interior Framing and Surfaces**

The ceiling between the Interior and the unconditioned attic spaces, recessed light fixtures, around plumbing stacks that go through the roof doors and hatch openings into the attic, opening between a chimney and the wood framing, balloon construction framing open from the basement all the way to the attic, chases where mechanical lines or ducts run (may be open from the attic to the basement) and all soffits (over kitchen cabinets and other places that may be open to side walls and floors and outside walls)

**Soil Around the Home Foundation-** As discussed in previous episodes of the DIY workshop, it's vital that the soil around you home slope away from the foundation properly. It suggests that you flash the soil, which involves digging down next to the foundation about 16" and out from the foundation three feet. Rubber-flashing material is then places against the house and the hole is back-filled with soil.

## TACKLING HOUSEHOLD MOLD

Its black, its green, it's alive and it's probably growing somewhere in your house. But is mold really dangerous?

The exasperating answer is, it depends.

The bottom line is undisputed: don't wait to find out.

Neil Sandler of Frederick, Md., was horrified when he casually dug into some moldy bathroom grout, only to find the problem was much worse than first it first appeared. "as I started digging into it. I started discovering more and more black," he said. Then he popped a tile out. "I was absolutely floored by what I saw. It looked almost like a fern, black fern."

And it extended behind all the tiles in the bathroom including the floor. After ripping everything out, Sandler realized that the tiles were laid on top of wood and particle board that had been saturated over time with water from the shower -- a perfect breeding ground for mold.

You have to replace the wood backing and particle-board sub-flooring with material called Drycrete, a plaster-like substance that is inorganic and impervious to mold growth. Buy many homeowners don't know what to do.

With so many headlines about mold making people sick and rendering homes uninhabitable, the first sight of mold in one's house or apartment might invoke unnecessary fear, experts say.

Mold follows in the line with lead paint and asbestos, and it is the next asbestos.

Lewis Harriman, a humidity control consultant in Portsmouth, N.H., explains why: "Mold is certainly the next asbestos because there's so little sciences that tells us who is going to have a (health) problems and how.)

There's widespread disagreement in the medical community over how sick it can make people. A basic consensus states that mold is most likely to affect people with allergies, causing respiratory ailments or exacerbating asthma.

The health effects are more likely to pronounced in children, says an environmental health specialist at Children's Mercy Hospital in Kansas City, MO. Nonetheless, "people have a big misconception of exposure-- of the potential for a health problem," he said "People are not educated in proper house maintenance."

A cottage industry industrial hygienists has cropped up to test the mold in people's homes don't wait to find out what kind of mold you have -- just get rid of it. Often a simple solution of bleach and water will wipe the mold away.

Guidelines on how big an area mold should occupy before a homeowner must call in professionals to do the cleanup: approximately ten (10) square feet or more.

You don't need to test a large area of black stains that are fuzzy to tell that you need to clean this up.

For more information visit [www.shns.com](http://www.shns.com)

### **FIGHTING MOLD AND MILDEW IN THE HOME**

Mold is a fungus with more than 100,000 known species that can be found in almost every environment on the planet. In order to thrive, molds require a food source, a water source and the right temperature.

Molds can be found on cellulose materials such as drywall, insulation and paper products, on clothing, leather, finished and unfinished wood products, food, plants, etc. Mold is most commonly found where there is moisture, such as in the bathroom. It can often be seen in the form of discoloration and can be many colors: white, orange, pink, blue, green, black or brown. When molds are present in large quantities (called colonies), they become a health concern.

For years the thought was to simply remove the visible mold spores using bleach and water. Bleaching kills the surface of the mold, it does not kill the body of the mold. Mold lies dormant, for as long as 15 years, then spring back to life when moisture is again introduced into its environment.

Some molds can be removed from hard surfaces such as ceramic tile and marble by using a dishwashing liquid followed by a solution of bleach and warm water. For the toxic and pathogenic molds, more drastic solutions may be needed. In some instances, it has been necessary to remove the wall boarding, floor covering and all personal belongings from home. Whatever is removed from a contaminated building should stay outside. Mold spores carried on your clothing and other personal belongings can even follow you from house to house.

First make sure you stop the water leak, add a dehumidifier to damp rooms, turn the heat up in the winter and open doors to rooms no longer used. these things will lower the moisture in the air that feeds molds.

You likely will need to insulate the attic and walls, vent all appliances with a vent to the exterior, use bath and kitchen fans and clean the fish tank and drain pan under the refrigerator, Watch for mold spores, too, on houseplants and in potting soils. Heating and cooling ducts should be cleaned, sealed and insulated and checked annually for leaks.

What do you need to do if you see mold or suspect that your home has a mold problem? Have the home

tested by a reputable company even though there is no licensing of testing companies or laboratories. It would be advisable to check local testing laboratories for referrals or contact a home inspector.

### **HOME MOLD PREVENTION TIPS**

Mold has existed since the dawn of time says Scripps Howard News Service.

Homes, apartment buildings, schools and commercial buildings are all much more energy-efficient than they were 20 years ago because they are better sealed against outside elements. But just as they seal the weather out, they seal in whatever moisture is generated inside, whether it's from water leaks, condensation from air conditioning, or steam from the shower and the stovetop.

Weed must become at least 30 percent saturated before it can grow mold and plaster is an inorganic element that is impervious to mold.

In modern construction, particleboard and drywall with paperbacking are the rule. These materials are much better hosts for mold: particle board contains bonding agents with sugars in them -- a favorite meal for mold; and the paper on drywall will quickly spur mold growth with the slightest moisture.

Basements used to be for the laundry or workshop but now people have just slapped drywall up against the damp basement walls.

Prevent mold growth by keeping moisture away. Rooms such as bathrooms and kitchens are properly vented. Washer and drying machines and gas fireplaces need proper ventilation too.

If we don't solve the moisture source, then cleaning up is almost useless. People should not install any vinyl-backed wallpaper anywhere because it prevents the give-and-take of air on each side of a wall. This traps any condensation that might arise from temperature changes and provides a perfect breeding ground for mold.

The basic message is, you shouldn't have mold growing in your home says the director of the indoor environment division of Environmental Protection Agency. If you're a homeowner, it's something you ought to be concerned about and vigilant about.

**If the problem gets to the point where a professional is needed** to clean the mold, people should call a mold remediator, but only one specifically certified through the Indoor Air Quality Association. A list of certified remediators is on the group's website, [www.iaqa.org](http://www.iaqa.org). or **call RCP Inspections/BIO Test.**

## MOISTURE ASSESSMENT OF YOUR HOME

When it comes to battling mold, best thing for homeowners to do is prevention. You'll save loads of money in the long run!

Bob Thompson, an engineer for the Environmental Protection Agency, first encountered mold during a study of schools in the early 1990s. He says, "We noticed that over and over again we were seeing mold in the schools. An quite large amounts of it." But even the worst-case scenario, simple maintenance could eliminate major problems. Controlling moisture, vapor, and humidity is the key to preventing mold!

### Doing a Moisture Assessment of Your Home

There are essentially two types of moisture:

1. Vaporous (humidity) or
2. Bulk water from sources such as rain and leaking pipes.

Note: Moisture from either source can cause a mold problem.

The first place to check for moisture is the ground near your home. The ground slope is easy to see, but to be sure the moisture is going away and not toward you home, take a bucket of water and pour it nears the foundation of your home. Does the moisture stay where it is, move toward your home and away from it? If the answer is that it moves toward the home, you could have a problem.

**Solution** - One of the ways to prevent moisture from getting into your house from this point and others like it is to do some landscaping. Bring a little extra top soil right into this area, build up the earth a little bit to create a more positive slope "away" from the house foundation, however do not add soil more that 6" below screed/sill plate.

If you have a deck behind you house, it could be hiding a low slope. Check underneath for moisture problems. Make sure the topsoil is slopping "away" from the foundation of the house. Check underneath the deck to see if rain has come through and built up in the area.

The next area to check is the gutter system. Be sure the gutters are cleaned regularly and that the downspouts are flowing properly -- away from the foundation of your home. Properly maintained gutters carry water away from the house. Check the gutters and downspouts every fall and spring (twice a year) to make sure the are moving water away properly. If the end of the downspout can't carry the water at least a couple of feet from the foundation, add an attachment.

The basement can be one of the major sources of mold problems. Make sure any drainage

system is working properly. If you have an air conditioning unit in the basement, make sure it's tilted toward the direction of the drain. Same goes with a humidifier or dehumidifier. If the units aren't tilted properly, puddles can form, which in turn can create a mold problem.

Drains aren't the only problem with basements, water can leak in from the outside. It's extremely important to make sure there are no open cracks. Concrete, since it's porous enough, can let water move through into the basement. The concrete can become damp enough to allow mold to grow.

**Solution:** It's hard to keep moisture from entering basement walls and slabs so experts warn against placing mold-friendly products such as drywall and wood in direct contact with the foundation. Because basements can get humid, it's best to use a dehumidifier during warmer months.

Bathrooms are another major source of humidity in any house. The primary source is vapor: moisture getting into the air. This is where a bath vent is vital and handy because it exhausts outside.

Liquid moisture in the bathroom is a problem as well. This is where the shower and tub come into play.

**Solution:** Make sure your tub and shower are sealed properly. Replace worn caulk around the edge of the tub or shower.

The attic is next. Moisture-and-mold trouble spot has the added pressure of usually housing a heating or air-conditioning unit that service the house. Both can generate moisture of the cooling or heating coils. That moisture needs to drain properly. Pans are usually installed to catch any excess moisture. Make sure your unit(s) have one.