



Fighting Mold – A Homeowners Guide

Understanding mold:

- Mold can be very harmful;
- Mold needs *moisture* to grow;
- Mold does not grow on dry materials;
- Materials can appear to be 'dry', but can contain high moisture levels;
- Mold growing inside a home can adversely affect the occupants; and
- Occupants can learn to recognize mold and should do...

What Makes Molds Grow?

Molds will grow if we provide them with enough *moisture and nutrients*. If we keep things dry enough, molds cannot grow. High enough moisture levels can be the result of water coming in from the outside, through the floor, walls or roof; from indoor plumbing leaks; or by way of moisture produced by the people occupying your home, through daily activities like bathing, expiration (*breathing*), washing clothes or cooking and simple evaporation. Water enters the building from outside when there is a weakness or failure in the structure. Moisture accumulates within the home when there is not enough ventilation to expel that moisture. Different kinds of molds grow on different materials. Certain kinds of molds like an extremely wet environment. Other kinds of molds may be growing even if no water can be seen. Dampness inside the material (*residual moisture*) can be enough to allow them to grow.

Why Are Molds A Concern?

Damage to materials is one concern. Materials get stained or discolored and over time they can become ruined. Moldy paper and cardboard disintegrate over time. Fabrics become damaged. Continued mold growth can be indicative of moisture conditions favorable for growth of fungi that cause wood rot and structural damage. When molds are growing inside the home, there may be health concerns, also. Molds release chemicals and spores. Health experts indicate that, depending on the type of mold present in a home, the amount and degree of exposure and the health condition of the occupant, the health effects of mold can range from being insignificant to causing allergic reactions and serious illness.

Pregnant women, infants, the elderly and those with serious health problems, such as respiratory disease or a weakened immune system, are more at risk when exposed to mold. Consult your family physician if you believe there is someone who may be at risk – including yourself.





Is There A Mold “Problem”?

Molds are always found in the air outside and inside all buildings. They come into the home in many ways — through open windows or doors, on clothing, pets, food or furniture. The problem starts when mold grows inside the home. Some mold growing, for example, on the windowsill but not elsewhere, is not a cause of concern, typically condensation. You can clean the mold away, yourself. The presence of mold is a “sign” there is too much moisture in your home, a situation that must be corrected. Inspect the home to find the extent and source of the mold, or engage a professional Home Inspector.

How Can You Tell If It Is Mold?

Discoloration is a sign of mold. However, not *all* discoloration is due to mold. Carpeting near baseboards, for example, can be stained by outdoor pollution entering the home as dirty air, as well as from indoor air-movement through that floor /wall joint if unsealed. Smoke may also cause stains or soot from burning candles or cigarettes. Mold may be any color: black, white, red, orange, yellow, blue or violet. Dab a drop of household bleach onto a suspected spot. If the stain loses its color or disappears, it may be mold. If there is no change, it probably isn't mold. Smells /odours sometimes indicate molds but may be hidden and cannot be seen. A musty or earthy smell often indicates the presence of molds. But a smell may not be present for all molds. Even when you don't notice a smell, wet spots, dampness or evidence of a water leak are indications of moisture problems and mold may soon follow.



How Much Mold Is Too Much?

One way to know is to estimate the area of the mold. Mold is considered to cover a “small area” if the patch is no larger than a (1) square meter. There should be no more than three patches, each patch smaller than a square meter. Consider cleaning up such ‘small’ areas, yourself, using an unscented detergent solution with warm water, household rubber gloves and a dust mask for protection (*such as an N95 dust respirator*), plus eye protection. Small moldy areas in homes may become larger over time, if ignored, so it’s important to clean up and remove even small patches of mold.

The mold area is considered “moderate” if there are *more* than three patches, each patch still smaller than a square meter, or if there is one or more isolated patches larger than a single square meter but smaller than 3 square meters (*size of a 4 x 8 foot sheet of plywood or regular drywall*). Assessment by a professional is recommended, afterwards. You can clean up ‘moderate’ amounts of mold, but you must follow proper procedures and use proper protective equipment.

A mold area is considered “extensive” if a single patch of mold is larger in area than a sheet of plywood. Being exposed to this much mold is not a good idea. Do not attempt to clean up large areas of mold yourself. You need professional help to determine why the mold is there in the first place and how to clean it up.

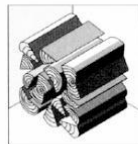
When Should You Seek Professional Help?

You may need professional help when:

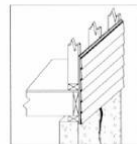
- There is a lot of mold.
- The home is very damp and moist.
- Mold comes back – even after repeated cleaning.
- A family member suffers from asthma, respiratory problems or other health problems that appear to be aggravated inside the home.



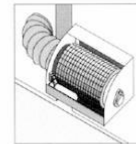
Reducing moisture



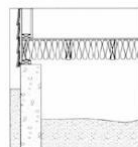
don't store firewood inside



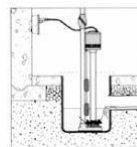
repair foundation leaks



disconnect or remove humidifiers



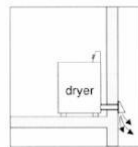
cover earth floors



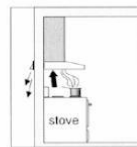
cover sump pits



don't hang laundry to dry inside



vent clothes dryers to the outside



use kitchen and bathroom exhaust fans



limit the use of misters and steam generators



Dealing With Mold Issues and Prevention...

1.0 General Interior

- 1.1. Repair /improve the building envelope is required if moisture is entering the home from the outside. At the same time, steps should be taken inside the home to reduce the occupants' exposure to mold.
- 1.2. Discard all moldy or damaged materials.
- 1.3. Vacuum. Proper vacuuming reduces the amount of mold spores. All surfaces in the home (*floors, walls, ceilings, shelves*) and non-washable furnishings (*such as sofas, chairs, etc.*) must be vacuumed thoroughly.
- 1.4. Prevent. Keep moisture generated within the home to a minimum by conscientiously following the prevention steps presented in the next section.
- 1.5. Clear wet areas. Pull carpets and furnishings away from walls that get wet. Carpets and under pads that are moldy should be cut out and discarded.
- 1.6. Dry. Take steps to dry up areas that get wet. Monitor the relative humidity of the air. Use a portable dehumidifier, if necessary. Ensure that the condensate drain pan of the dehumidifier is emptied regularly (*note – NOT needed or recommended for Greater Vancouver's general area at all, as moisture is recognized to be generally "high", already*).
- 1.7. Isolate. If the mold is limited to one area, isolate that area if possible. Cover the affected surfaces with plastic sheeting secured at the edges with duct tape. Note - this is only a temporary measure to minimize your own exposure.
- 1.8. Clean. Healthy individuals can regularly clean "small" and "moderate" areas of mold, thus preventing these from getting out of hand, by following safety precautions and cleaning guidelines. **DO NOT USE YOUR REGULAR VACUUM FOR MOLD CLEAN-UP; A HEPA FILTER VACUUM IS RECOMMENDED** (* source: CMHC <http://www.cmhc.ca>).

2.0. Laundry Areas

- 2.1. Check that your clothes dryer exhausts to the outside, fully.
- 2.2. Remove lint every time you use the dryer.
- 2.3. Don't hang-dry laundry indoors!
- 2.4. Dry your laundry tub and washing machine after you use them.

3.0. Bathrooms

- 3.1. Check the bathroom fan to make sure it exhausts fully to the outside.
- 3.2. Turn the bathroom fan on when you shower. Keep it running after you finish your shower; a connected automated humidity-control is recommended.
- 3.3. Take short showers.
- 3.4. Keep surfaces that get wet, such as the walls around the bathtub and shower, clean and dry in between uses.
- 3.5. If there is a carpet in your bathroom, **remove it**.
- 3.6. Check for water leaks.
- 3.7. Keep drains in good shape by removing debris from them.
- 3.8. Monitor window frames for condensation; any is "too much".

4.0. To Clean A Slow Drain:

- 4.1. Pour a handful of baking soda into it. Add a cup of vinegar. Put the plug in the drain. Let the vinegar and baking soda work for about 20 minutes. Run fresh HOT water into the drain. If the drain is still clogged, use a plumbing snake.

5.0. Kitchen

- 5.1. If the fan over your stove exhausts outside, use it whenever you cook; if it doesn't exhaust properly, have it repaired /replaced.
- 5.2. Minimize open boiling.
- 5.3. Keep your drains in good condition (*Follow the steps in the bathrooms section above*).
- 5.4. There's a drip pan at the back of the refrigerator. Pull the refrigerator out to clean the drip pan. At the same time, vacuum dust from the coils at the back of the refrigerator.
- 5.5. Check under the kitchen sink to make sure there are no leaks.
- 5.6. Take out the garbage daily to prevent odours and spoiling.



6.0. Other Parts of The Home

- 6.1. A dehumidifier helps to reduce moisture in the home, all year round.
- 6.2. Close windows when the dehumidifier is running the bathroom fan.
- 6.3. When family and friends come into the home, have them take off their shoes.
- 6.4. Vacuum often. If you are buying a vacuum cleaner, try to get one with a HEPA filter.
- 6.5. Clean hardwood floors with a damp mop (*do not 'wet' laminate floors*).
- 6.6. Do not bring in furniture, clothing, books etc. that have been stored in a moldy place, into your home.
- 6.7. Cut down the number of potted plants in the house—soil is a good place for mold.



*NOTE – this is the WRONG setting;
Should be 40-50% relative humidity and if you cannot stand the sound of the ceiling fan running, replace it with a modern, whisper-quiet model...*

“Uncovering Tomorrow’s Surprises, TODAY!”

