



MOLD GUIDANCE FOR TENANTS AND LANDLORDS

Many landlords and tenants do not understand why mold problems start and how to safely clean them up when they do. This document is designed to eliminate the confusion with simple guidance to help prevent the most common problems we have observed.

In summary, you need to know that:

- A mold problem is an excess moisture problem
- Excess moisture comes from leaks or condensation
- Leaks are the landlord's responsibility
- Condensation is the tenant's responsibility
- Condensation is poorly understood by both parties and is a very common, easily preventable source of mold-causing excess moisture

**WITH A GOOD FAITH EFFORT BY BOTH TENANTS AND
LANDLORDS, WE CAN KEEP MOLD OUTSIDE, WHERE IT BELONGS.**

A mold problem always starts as an excess moisture problem. When mold appears, concerned tenants and landlords often “discuss” who is at fault, who should clean it up and how the cleanup should be done. Responsibility for mold growth usually depends on the cause of excess moisture.

UNWANTED MOISTURE SOURCES. There are 3 main ways that water or excessive moisture gets into living spaces to enable the mold growth that should not be allowed to grow indoors:

- Weather leaks from outside (landlord's responsibility),
- Plumbing leaks inside (landlord's responsibility), and
- Condensation of moisture from the indoor air onto cool surfaces (tenant's responsibility).

In the first two cases with actual water leaks, it still falls on the tenant to promptly notify the landlord, preferably in writing, that water is leaking into the unit. The tenant is doing the landlord a favor, trying to prevent damage to the structure, while at the same time defending his or her own health against exposure to the mold that WILL result from leaks that are ignored or fixed too late.

The concept of condensation is very important. Condensation occurs when moisture suspended in the air turns into liquid water on a cool surface. The surface temperature at which this occurs is known as the "dew point" temperature. This is what happens when water beads up on a glass of ice water...that water came from the air. Control dew point temperature by controlling room temperature and relative humidity.

Chronic excess moisture anywhere in your home will result in mold growth. It's not magic! Typically every square inch of your home and your belongings are covered with at least a few microscopic mold spores, unavoidably wafted or tracked in from outside, just sitting there, probably not hurting anybody. But add water and mold spores will grow to form visible spots or "colonies" that will continue to grow and enlarge as long as moisture is available.

If indoor airborne moisture (relative humidity) is not controlled and your windows - especially modern double pane - - are chronically fogged and wet, you will find that this condensation is reaching other cool surfaces as well, encouraging mold growth, for example, on:

- Exterior surfaces starting in the coolest spots like corners and wall/ceiling interfaces because this is where uninsulated wood in the wall provides a "thermal bridge" to the cold exterior
- Shoes and other belongings in closets that share an exterior wall

PREVENTING CONDENSATION, THE SHORT VERSION

To prevent condensation and resultant mold growth:

- Keep relative humidity below about 40 to 50 percent.
- Control (reduce) relative humidity by using effective bathroom, kitchen, and utility room exhaust fans above common moisture sources. Make sure the clothes dryer is venting properly. Cook with lids and do not dry clothing on indoor clothes lines or racks. Check that exhaust fans are actually moving air: the suction should hold up a tissue.

- Make sure the “used” indoor air gets exchanged daily: Flush the unit aggressively with cold outside air by opening doors and windows for 5 minutes or so; if windy, maybe 60 seconds will do.
- Confirm your safe relative humidity level using a reliable digital gauge. A good relative humidity gauge (called a thermometer/hygrometer) will cost about \$25 and this is cheap insurance to protect property and occupant health.
- Use a dehumidifier if necessary.

PREVENTING CONDENSATION, THE LONGER VERSION

Condensation may be best explained using a very typical cold weather scenario: Three college students move into an apartment that has modern double pane windows and baseboard or wall-mounted electric heat. Baseboard electric heat is expensive, so the students keep the doors and windows shut tight to save money. They might only heat selected rooms.

In a tightly sealed home, moisture accumulates from typically very moist lifestyles: cooking, showering, even simply breathing will add lots of moisture to the air increasing relative humidity well past the 30 to 50 percent level.

The first warning sign of excess mold causing moisture is fog (condensation) on the room side of double pane windows which can drip down to “pond” on sills. The response to this warning should be to quickly and thoroughly ventilate the unit. By quick, we mean perhaps five minutes...maybe only half a minute with the help of a windy day: open all doors and windows and try to make a “wind tunnel” out of the unit, rapidly flushing the warm wet air out and allowing the cold outside air to come in.

“I paid to heat that warm air!” you might say. True, but the air in your unit only contains about two percent of the heat you bought; 98 percent of the heat you bought is in your stuff, your furniture, and the warmed surfaces of the unit. And that “stuff” will not release its heat during the brief required flush out.

Now close your doors and windows and allow the room air to warm up, which it will do quickly because there is not much substance to air...it is easy to heat and cool. When the colder outside air is brought in side and warmed up, its relative humidity is also lowered making this fresh air a powerful drying force in your unit. The moisture on your windows will evaporate into the dry room air; watch the fog retreat from your windows, hopefully never to return.

Let’s try another example: Picture yourself standing in what you know is a too wet apartment that you need to flush with outside air to dry out. But looking outside, it is 40 degrees, raining cats and dogs and it’s foggy (100 percent relative humidity = saturated air = the air is completely full of moisture so you can actually see the excess = fog). Why in the world would you want to bring all that moisture into your home if the goal is to dry it out? Good question...here’s the

answer. Forty degree fog will become quite dry air (32 percent relative humidity) just by warming it up to 70 degrees. It's just physics, the laws of nature. Raise the temperature of air and you will lower the relative humidity and dew point, every time, as demonstrated on a 'psychrometric chart'. Repeat the flush out as necessary to keep the unit's relative humidity under 50 percent, in general, during the colder months.

CONTROLLING BATHROOM MOISTURE

Some bathrooms have no exhaust fans. Others have fans that don't work or are so noisy occupants don't want to use them. Promptly notify management if an exhaust fan appears to not be working properly or is does not have one. These new fans are incredibly quiet, long-lasting, and very energy efficient. In fact these fans can use a lot less energy than a compact fluorescent light bulb! A bathroom with no exhaust fan is very challenging to keep free of mold growth.

SAFE MOLD CLEANUP IN RENTAL PROPERTIES

Cleanup of incidental mold growth may be a simple matter of misting the mold with soapy water and washing it off a surface. However, extensive mold growth, like a slow leak in a wall cavity involving several square feet of mold growth, usually requires workers who are trained to erect plastic sheeted enclosures around the work area to prevent release of mold to contaminate the whole rental. This guide serves to help you understand what mold problem you may be dealing with.

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