



MOULD AND CONDENSATION IN YOUR HOME

Indoor condensation can cause damage to fabrics, discolour paint and wallpaper but more importantly it promotes conditions suitable for the growth of mould. When water is heated it changes into vapour. Condensation occurs when the vapour cools and changes it back into liquid. When air is humid condensation will occur at the slightest drop in temperature. For example, the droplets of water that forms on the mirror or window of an unventilated bathroom while taking a hot shower or bath. In most homes, heating ducts, indoor condensation or lack of subfloor ventilation is the main source of moisture for the growth of mould.

WHAT IS MOULD?

Mould is a fungal growth. It grows in homes under the right conditions of dampness, darkness and poor ventilation: e.g. bathrooms or kitchens, cluttered storage or basement areas, flooded areas, plumbing pipes and outdoors in humid environments.

Walls, timber, carpet, furniture and fabrics can harbour mould if they stay damp for extended periods of time.

HEALTH EFFECTS OF MOULD

Not all people are adversely affected by mould. However it can emit particles that may cause some people to sneeze. This is not necessarily an allergy; like a dust storm, it is a reaction to the particles in the air. Often, moulds can also release a musty odour which can be disagreeable.

Toxic moulds produce mycotoxins that can pose serious health risks. Some studies claimed that exposure to high levels of mycotoxins can lead to neurological problems and in some cases death. Prolonged exposure may be particularly harmful. Research in this area has not been conclusive.

Symptoms caused by mould allergy may include:-

Respiratory illness or asthma

Watery, itchy red eyes

Chronic cough

Headaches or migraines

Rashes (Dermatitis)

Tiredness

Sinus problems, blocked nose

Frequent sneezing;

Individuals with persistent health problems that may be fungi-related are advised to see their GP for a referral to a practitioner trained in environmental medicine or related specialties and are knowledgeable about these types of exposures.

HUMIDITY IN THE HOME

Humidity in a structurally sound home comes from kitchens and bathrooms: from clothes dryers, un-flued gas heaters, washing machines, showers, fridge drip trays, indoor plants and evaporation from your body and breathing. Once water vapour is in the air it easily travels to other areas of the house where it may come into contact with cooler surfaces and condense. The most common places for condensation to occur are windows, un-insulated exterior walls and bedrooms. Corners of rooms are also prone because they tend to be cooler and have less air movement. Moisture can be retained in walls depending on the finish. Many interior finishes retain some levels of moisture. The interior finish is a critical factor affecting the growth of mould. Flat paints, plasters and untreated wood are more prone to moisture absorbency than semi-gloss or gloss painted surfaces and treated timbers. High levels of humidity in the home are usually due to temporary sources of vapour generation such as a boiling kettle, or a hot bath, etc. However, new houses often have higher indoor humidity levels during the first few years as the concrete, plaster, paint and wood furnishings dry out. Older houses may have ongoing problems with dampness because of structural breakdown such as broken roof tiles, poor cavity wall ventilation and rising damp.

CONTROLLING CONDENSATION AND MOULD

The main ways of controlling condensation and mould are:-

- Ventilation
- Heating
- Insulation
- Removal

VENTILATION

Open windows and doors to ventilate the home and reduce the humidity level. Don't forget the attic, basement and crawl spaces.

Install and use mechanical ventilation (exhaust fans) that are vented to outside air, particularly in the bathroom and in the kitchen while cooking. This can eliminate much of the moisture that builds up from everyday activities.

Consider installing ventilation over appliances producing moisture, such as dryers, stoves and kerosene heaters or leave windows ajar while they are on.

HEATING

Keep indoor moisture low. Relative humidity should be below 60% (ideally 30%-50%).

Relative humidity can be measured with a humidity meter, a small, inexpensive instrument available at most hardware stores.

Maintain low constant heat when weather is cold or wet. Continuous, even heating is better than short bursts.

Install heating in the bathroom such as heat globes.

INSULATION

Condensation forms more easily on cold surfaces, for example walls and ceilings. In many cases those surfaces can be made warmer by improving insulation.

Insulate hot and cold surfaces such as water pipes.

REMOVING MOULD

Eradicate mould when it occurs. It is hard to remove when it has been there awhile.

REMEMBER: The only lasting cure for mould is to reduce the dampness.

GENERAL HOUSEHOLD MAINTENANCE

Structural

- Check the roof for leaks and broken tiles regularly.
- Fix leaky plumbing as soon as possible.
- Ensure weep holes on the outside of the building are not blocked. Weep holes allow drainage of water and the escape of vapour pressure from internal walls. Over Winter and Spring the weep holes in window frames (aluminium frames) can get clogged. If clogged, water will stand in the lower window frame sections
- Check for doors or windows that may have broken seals.
- Ensure vents and air ducts are not clogged.
- Check for leaky toilets and that bathtub and kitchen sink seals are undamaged.
- Swollen or crumbling walls or buckling floor boards should be removed.
- Check for stained ceiling or wall tiles.

CLEANING

- Clean your bathroom frequently.
- Clothes and shoes must be dry before storing them.
- Clean evaporation trays in air conditioners and refrigerators frequently.
- Cool mist or ultrasonic humidifiers should be cleaned according to manufacturer's instructions and refill with fresh water daily.
- Wipe away moisture on windows and walls to keep your home dry.
- Carpet/rugs should be regularly aired and cleaned to prevent mould harbourage.
- If flooding occurs it is important to clean and dry the area immediately or preferably within 24-48 hours to prevent mould growing. Water damaged carpets and building materials can harbour moulds and bacteria. It may be necessary to remove the carpet as the mould may be impossible to remove completely.

WARDROBES/CUPBOARDS

- Allow plenty of ventilation in wardrobes. Leave doors open if possible.
- If your wardrobe has been affected by mould growth, investigate the source of moisture and treat as soon as possible. Remove mould and allow to completely dry.
- Use a semi-gloss paint on wooden surfaces. Untreated woods are more prone to moisture absorbency than semi-gloss painted surfaces and treated pine.

OTHER

- Consider installing sky lights in darker areas.
- Minimise the number of indoor plants.
- When filling your bath, add cold first, this reduces the steam produced.
- Let the sun into your home by opening curtains.

GARDEN MAINTENANCE

- Don't let the building foundation stay wet. Provide drainage from roof guttering and slope the ground away from the foundation of the building.
- Ensure garden beds are not higher than the foundation of the building. This will prevent moisture migrating into the wall.
- Clean roof gutters regularly.
- Downpipes should drain into soak wells to ensure drainage away from the house.
- Prune overhanging trees near the roof.