



MOULD AND CONDENSATION IN YOUR HOME

This information sheet should be read in conjunction with the Department of Health's brochure titled *INDOOR CONDENSATION AND MOULD*.

VENTILATION

- Open windows and doors to provide fresh air in the home and reduce the humidity level.
- Install and use mechanical ventilation (exhaust fans) that are vented to outside air, particularly in the bathroom. This can eliminate much of the moisture that builds up from everyday activities.
- Ventilate the attic and 'crawl' spaces to prevent moisture build-up.
- Consider providing ventilation over appliances that produce moisture, such as clothes driers, stoves, and kerosene heaters.
- If you use clothes driers with a vent on the front, open a window so that moisture doesn't build up on the walls and ceilings.
- Kerosene heaters increase the moisture in the air. If you use a kerosene heater, open curtains and blinds during the day and whenever possible open windows and doors so that air can flow through the room.

HEATING

- Keep indoor humidity low. If possible indoor humidity should be below 60 percent (ideally between 30 and 50 percent) relative humidity. Relative humidity can be measured with a moisture or humidity meter, a small inexpensive (\$10-\$50) instrument available at most hardware stores.
- Install approved heating in the bathroom such as heat globes.

INSULATION

- Insulate hot and cold surfaces, such as water pipes.
- Insulate walls and ceilings so they remain warmer for longer. This will reduce the likelihood of water vapour condensation conditions that are ideal for mould growth.

GENERAL HOUSEHOLD MAINTENANCE

Structural

- Check the roof for leaks and broken roof tiles regularly.
- Fix leaky plumbing as soon as possible. (Check for black, brown, orange, pink or green speckled walls around plumbing and tiles)
- Ensure weep holes on the outside of the building are not blocked. Weep holes allow drainage of water and the escape of moisture and vapour pressure from the internal walls.
- Over winter, and especially in spring the weep holes in your window frames (aluminium frames) can get clogged. If these get clogged, water will stand in the lower window frame sections.
- Check for leaky doors or unsealed windows that may have broken seals.
- Ensure vents or air ducts are not clogged.
- Check for leaky toilets/bathtub seals.
- Check the seals around kitchen sinks/basins to ensure they are sealed correctly.
- Make sure there are no swollen or crumbling walls or buckling floor boards.
- Check for stained ceiling or wall tiles. (you may be surprised as to what may be growing underneath)

Cleaning

- Clean the bathroom more frequently to keep mould to a minimum. It is recommended that you use bleach based products.
- Make sure clothes and shoes are dry before putting them away into the wardrobe or clothes storing area.
- Evaporation trays in air conditioners, dehumidifiers, and refrigerators should also be cleaned frequently.
- If using cool mist or ultrasonic humidifiers, clean appliances according to manufacturer's instructions and refill with fresh water daily.
- Regularly clean carpets and rugs to prevent harbourage of mould spores.
- Thoroughly clean and dry water-damaged carpets and building materials (within 24 hours if possible) or consider removal and replacement. Water-damaged carpets and building materials can harbour mould and bacteria. It is very difficult to completely rid such materials of biological contaminants. It may be necessary to remove the carpet as the mould and/or spores may be impossible to remove completely.
- If water leaks or spills occur indoors it is important to clean and dry the area immediately or preferably within 24-48 hours to prevent mould from growing.

Wardrobes/cupboards

- Allow plenty of ventilation in wardrobes. Leave doors open when possible.
- If your wardrobe has been affected by mould growth, regularly clean the wardrobe with bleach based products to prevent mould spores from growing. *Caution: Take care when using bleach near clothing.*
- Use a semi-gloss paint on wooden surfaces. Untreated woods are more prone to moisture absorbency than semi-gloss painted surfaces and treated timbers.

Other

- Consider installing sky lights in darker areas of the house.
- Keep the number of indoor plants to a minimum.

GARDEN MAINTENANCE

- Don't let the foundation of the building 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.
- Ensure gutters and down pipes drain into soak wells to ensure adequate rainwater drainage away from the building.
- Prune overhanging trees near the roof.

Remember: When cleaning mould you must remember to wear gloves, glasses or goggles, and a respirator or face mask to protect yourself from mould spores.

Useful sites on Mould that may assist you include:

- *Guidelines on assessment and remediation of fungi in indoor environments by the New York City Department of Health, 2000.*

www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html

- *Mould Help*

<http://www.mold-help.org/>

??? Frequently Asked Questions ???

My house has a mouldy smell but I can not see any mould. Where is it?

In some cases mould growth indoors may not be obvious. It is possible that mould may be growing on hidden surfaces in the building. Such sources may include;

- Opposite side of dry walls, wallpaper or panelling;
- Roof materials above ceiling tiles (due to roof leaks or insufficient insulation). Cement roof tiles may lose their outer glazed surface and absorb moisture into roof spaces;
- Underside of carpets and pads;
- Pipe chases in walls;
- Inside walls around pipes (with leaking or condensing pipes);
- Inside ductwork;
- The surface of walls behind furniture (where condensation forms);
- Condensate drain pans inside air handling units;
- Porous thermal or acoustic liners inside ductwork;
- Dry wall (also known as wallboard or gypsum board) with vinyl wallpaper over it or wood panelling, may act as vapour barriers, trapping moisture underneath their surfaces and thereby providing a moist environment where mould can grow;
- Insulation;
- Drains;
- Curtains; and
- Wood siding where the paint has cracked and water has intruded (poor maintenance).

Can mould cause health problems?

Some types of mould, particularly those that produce mycotoxins (chemical substances that moulds create generally as secondary metabolites) can lead to health problems by breaking down the immune system. Symptoms can present as a runny nose, eye irritation, cough, congestion, and asthma-type problems or respiratory infections. Other reported symptoms include fatigue, nausea and headaches.

Many of the symptoms are consistent with someone who has allergies.

Individuals with persistent health problems that appear to be related to fungi are advised to see their physician for a referral to a practitioner who is trained in occupational/environmental medicine or related specialties and are knowledgeable about these types of exposures.

My carpet has been affected by mould growth, and the mould keeps growing back. What can I do?

It is necessary to thoroughly clean and dry water-damaged carpets immediately, otherwise the carpet may harbour mould spores and bacteria. It is very difficult to completely rid such materials of biological contaminants, and it may be necessary to remove and replace the carpet and underlay because the mould and/or spores may be impossible to remove completely.

I am renting a property and there is mould growing in the building. What should I do?

Mould and mildew caused by faults in gutters or other fixtures should be remedied by the owner, but the tenant must ensure there is adequate ventilation throughout, to help avoid mould problems in winter.

If you have taken measures to ensure the building is properly ventilated and mould is still growing, you should raise the issue with the owner. In the event that the owner does not take action to remedy the situation, you may wish to raise the issues with your local government Environmental Health Officer, who may wish to inspect the property and inform the owner in writing to take immediate action to resolve the problem.

Tenants seeking further advice may wish to contact the Western Australian Tenants Advice Service (TAS) Metro Advice Hotline on 9221 0088 or the Country Advice Hotline on 1800 621 888.

I have heard some species of mould can be toxic. How can I find out what species the mould in my house is?

If you would like to get the mould on your property tested to determine what species it is, look in the yellow pages under 'Analysts' for a list of analytical laboratories that may assist you in the species identification.

I have tried everything to get rid of mould, and nothing works. Who can help me?

If you have taken measures to prevent mould from growing in your building and you are still having problems, you may wish to seek the services of a building consultant/building inspector.

Look in the yellow pages under 'building consultant' or 'building inspector' for a list of companies who may assist you with advice on structural and moisture damage to your building.