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Mould & Damp Control: A Homeowner's Guide

A handy guide on the causes of excess water in your home, and how to prevent & treat the symptoms.

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Condensation in your home

What is dampness?

Dampness can originate from:

- Leaking pipes, wastes, drainage and overflows.
- Rain water from defective roof coverings, blocked or leaking gutters and broken pipes.
- Penetrating dampness around windows, through walls and due to raised ground levels.
- Rising damp due to lack of, or no effective, damp proof course.

Condensation Dampness

is a condition that affects many homes and has probably become the major cause of 'environmental' dampness within a property. Condensation is particularly common in homes which are poorly heated and poorly insulated and usually gets worse in the colder winter months i.e. 'the condensation season'.

What is condensation?

There is always some moisture in the air, even if you cannot see it. If the air gets colder, it cannot hold all the moisture and tiny drops of water appear – the Dew Point. This is condensation. You also notice it when you see your breath on a cold day, or when the mirror mists over when you have a bath. Kitchens and bathrooms are often primary sources of atmospheric water.

Moisture is released into the air through normal daily activities such as washing, cooking, drying clothes, showering and bathing. Condensation can occur commonly on windows or external walls, or cold surfaces within the fabric of the property. Look for it in corners, on or near windows, in or behind wardrobes and cupboards. It often forms on north-facing walls.

Condensation is often associated with poor heating and ventilation in buildings. It is more apparent in winter, as the external air temperature is low and walls and windows are cold. The usual sequence of events is as follows:

- Cold air enters the building.
- The air is warmed for the comfort of the occupants.
- The warm air takes up moisture.
- The warm, moist air comes into contact with cold surfaces (walls, windows, etc.) and is cooled below its Dew Point.
- Condensation occurs as the excess moisture is released.

Problems caused by condensation

Running water on windows and walls is perhaps the most immediate indication of a condensation problem. If ignored this can lead to a deterioration in the decorative condition of the property, stained curtains, decay in window frames and the appearance of moulds on the surface of wallpapers and paints in poorly ventilated areas. Condensation can also occur under suspended floors and in roof voids, greatly increasing the chances of fungal decay.

Don’t let mould take hold

Mould

The development of mould growth is the most common tell-tale sign that is frequently associated with condensation. It can lead to staining, damage to wallpaper, wall surfaces, window frames, furniture and clothing. The appearance of mould may be black, white, yellow or green in colour, depending on the specific type of mould and the surface on which it grows.

Moulds are hydrophilic fungi in that they require high levels of moisture. Capillary held dampness (such as that originating through rising dampness) is not sufficient to cause mould growth. The mould requires free moisture on the surfaces to germinate and grow.

Tiny spores produced by the mould and the higher numbers of dust mites due to the moist conditions can increase the risk of asthma and respiratory illnesses in some people.

In the short-term you should wipe off the condensed water from windows and sills every morning during the condensation season. Wring out the cloth into a sink rather than drying out on a radiator.

Maintaining a reasonable balance between heating, ventilation and insulation can reduce excessive condensation. However, a review of lifestyle and occupation of the property is often necessary.

Mould Cleaning

Regular cleaning away of mould is vital. To remove mould, wipe down walls and window frames with a preparatory mouldicide or fungicidal wash (one which carries a Health and Safety Executive approval number). Spray containers of mouldicide can be obtained from chemists and retailers and mould kits can be obtained from specialist suppliers. Follow the manufacturer’s instructions precisely which will provide longer term prevention.

Avoiding Mould

The only lasting way of avoiding severe mould is to eliminate the cause of the dampness – condensation.

Handy Tips

- Dry-clean mildewed clothes.
- Shampoo carpets.
- Avoid disturbing the mould by brushing or vacuum cleaning.
- Following treatment, redecorate using a good quality fungicidal paint to prevent mould.
- Do not over-coat with ordinary paint, emulsion or wallpaper. Use a mouldicide solution additive to mix with the paint, or wallpaper paste containing a fungicide.
- Using a dehumidifier will help control the airborne moisture and help reduce the problem, however, dehumidifiers will not solve the cause(s) of the condensation problem.

How to avoid condensation

Produce less moisture

Reduce the potential for condensation by producing less water. Cooking with pan lids on and turning the heat down once the water has boiled, will greatly reduce condensation. Only use the minimum amount of water for cooking vegetables and when filling the bath, run the cold water first then add the hot – it will reduce the steam which leads to condensation by up to 90%.

Avoid drying laundry on radiators and where possible, dry washing outdoors or place in the bathroom with the door closed and the window open/extractor fan on.

When using a tumble dryer, make sure it is vented to the outside (DIY kits are available for this) or is a condenser dryer.

Do not use your gas cooker to heat your kitchen as it produces moisture when burning gas – you will notice the windows misting up.

Ideally, extractor fans should be constant duty fans or be humidistat controlled. Most will be solely activated by a light switch. If you are purchasing a new fan, it will be worth investigating the automatic function.

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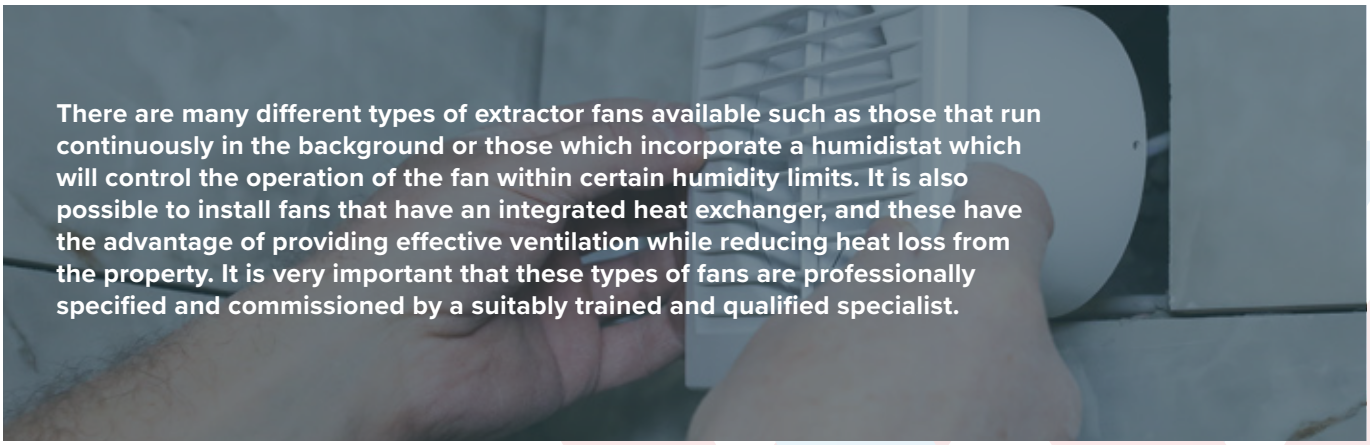
Tea Time

Cook with pan lids on and turn the heat down once the water has boiled.



There are many different types of extractor fans available such as those that run continuously in the background or those which incorporate a humidistat which will control the operation of the fan within certain humidity limits. It is also possible to install fans that have an integrated heat exchanger, and these have the advantage of providing effective ventilation while reducing heat loss from the property. It is very important that these types of fans are professionally specified and commissioned by a suitably trained and qualified specialist.

The power of proper airflow

Ventilate to remove moisture

You can ventilate your home without making draughts. Some ventilation is needed to get rid of the moisture being produced at the time, including that from people's breathing. Keep trickle vents open at all times or alternatively, open small window/top lights.

Use passive Vapour Vents if no trickle vents are fitted to windows.

Do not have airbricks fitted at low levels.

The installation of suitable extractor fans in the moisture producing rooms of a property such as the kitchen, bathroom and en-suites, will help remove the majority of this moisture-laden air from these areas (that are most responsible for condensation), with minimal running costs. This is a requirement of the Building Regulations for new properties, whilst also applying to existing buildings.

Kitchen and bathrooms require more ventilation due to cooking, washing, bathing and drying creating high levels of moisture. Close the bathroom and kitchen doors when these rooms are in use, even if the kitchen or bathroom extractor fans are on. This stops the moisture reaching other rooms, especially bedrooms which are often colder and more vulnerable for condensation.

Tips to circulate the air

Allow space for the air to circulate in and around your furniture:

- Open doors to ventilate cupboards and wardrobes.
- Leave space between the backs of wardrobes and the wall. Where possible, position wardrobes and furniture against internal walls i.e. walls which have a room on both sides rather than external walls.
- Avoid overfilling wardrobes and cupboards as it restricts air circulation.
- To reduce the risk of mildew on clothes and other stored items, allow air to circulate round them by removing 'false' wardrobe backs or drilling breather holes in them. You can place furniture on blocks to allow air to circulate beneath.

Bath Time

When filling the bath, run the cold water first then add the hot – it will reduce the steam which leads to condensation by up to 90%.

Heat your home a little more

In cold weather, the most efficient way to keep rooms warm enough to avoid condensation is to have low background heating on all day – even when there is no one at home. This is very important in flats, bungalows and homes where the bedrooms are not above a warm living room.

If you have central heating, set it to provide background warmth in ALL rooms including any unused rooms. Use the heating system on a regular balanced cycle with all radiators working to all rooms during colder periods.

Otherwise install suitable thermostatically controlled heaters where necessary. The thermostats will help control heating and costs.

Do not use paraffin or bottle gas heaters for this purpose.

Insulate and draft proof

Draughtproofing of windows and outside doors will help keep your home warm and should result in lower fuel bills. When draftproofing:

- Do not block permanent ventilators.
- Do not block unused chimney breasts – fit a ventilator/air brick.
- Do not draughtproof rooms where there is a fuel burning heater (e.g. gas fire).
- Do not draughtproof windows in bathrooms and kitchens.
- Insulation should also be considered for roofs, cavity walls and sloping ceilings (soffit) as these are traditionally poorly insulated.

Keep Warm

In cold weather, the best way to keep rooms warm enough to avoid condensation is to keep low background heating on all day. When the home is warmer, condensation is less likely to occur.

Do you need professional help?

Professional advice is available

A much less common form of condensation occurs when the Dew Point is reached, not on the surface of a wall but within the structure of the building itself. This is known as interstitial condensation and can easily be mistaken for rising damp or penetrating damp.

Condensation is a real problem and where it persists, a specialist surveyor should be engaged to explore the cause of the problem and provide advice or propose solutions.

Simply heating the air is unlikely to be a satisfactory solution, not only on grounds of cost, but also of practicality. Unless cold surfaces are eliminated and there is sufficient background ventilation, condensation is almost inevitable. Any remedial action, therefore, must involve lowering of moisture levels, ensuring sufficient ventilation and the elimination of cold surfaces.

Improved heating and ventilation coupled with specific action in relation to cold spots will usually result in a significant improvement in conditions, although there may be circumstances in which alternative methods are required. A modest but constant background heat is preferable to intermittent heating since this will help to maintain a higher ambient temperature in the fabric of the building.

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