

# Condensation and mould growth

Condensation is usually the biggest cause of damp within homes.

A damp home provides the perfect environment for mould to grow: mould encourages mites into your home (which feed on mould) and can increase the risk of respiratory illnesses in some people.

This leaflet explains how condensation forms and how you can keep it to a minimum to reduce the risk of damp and mould.

**By reducing moisture and dealing with the causes of condensation you will automatically deal with the problem of mould.**

# Types of Dampness

There are four main types of dampness that could affect your home. It is important to understand the difference between them so that you can effectively treat the problem.

## 1. Penetrating Dampness

This type of dampness is usually found on external walls or due to roof leaks on ceilings. It only appears because of a defect outside the home, such as missing pointing, cracked rendering, missing roof tiles or defective rainwater goods.

These defects then allow water to pass from the outside to the inner surfaces. Penetrating dampness is far more noticeable following rainfall and will normally appear as a well defined 'damp-patch' which looks and feels damp to the touch.

Note. Black mould is rarely seen on areas of penetrating dampness. This is because the affected area is usually too wet and the dampness contains salts picked up when passing through the wall, which prevent the growth of black mould.



## 2. Defective Plumbing



Leaks from water and waste pipes, especially in bathrooms and kitchens, are relatively common. The affected area looks and feels damp to the touch and remains damp whatever the weather conditions outside. A quick examination of the water and waste pipes serving the kitchen and bathroom and the seals around the bath, shower and sinks; plus the external pipework, such as guttering will usually find the source of the problem.

Note. Black mould is rarely seen on this type of dampness as the area is usually too wet and the chemicals in a waste waterleak will prevent mould growth.

### 3. Rising Damp



This is generally caused by water rising from the ground into the home. The water gets through or round a broken damp proof course (DPC) or passes through the natural brickwork if the property has no DPC. A DPC is a horizontal layer of waterproof material in the walls of a building just above ground level to stop moisture rising through the walls by capillary action.

Rising damp will usually only affect basements and ground floor rooms. It will normally rise no more than 12 to 24 inches above ground level and

usually leaves a 'tide mark' low on the wall. You may also notice white salts on the affected areas called efflorescence salts.

Rising damp will be present all year round but is more noticeable in winter. If left untreated it may cause wall plaster to crumble and paper to lift in the affected area.

Note. Black mould will not usually be seen where there is rising damp. This is because rising dampness carries with it ground salts which prevent the growth of black mould. However secondary factors can result in conditions becoming varied.

### 4. Condensation

Condensation happens when water vapour or moisture from inside the home comes into contact with a colder surface, such as a window or wall. This forms water drops (condensation) which may soak into wallpaper, paintwork or even plasterwork. In time, the affected damp areas attract black mould.

Condensation mainly occurs during the colder months, regardless of the weather outside. It is usually found in the corners of rooms, north facing walls and on or near windows. It is also found in areas of poor air circulation such as behind wardrobes and beds, especially when they are pushed up against

external walls. Note: Black mould is frequently seen on this type of dampness. Most homes will be affected by condensation at some point. However, certain activities can increase the problem. Condensation and mould growth is often something that can be reduced or remedied without expensive works or treatments.

The ‘amount’ of condensation in a home depends upon three factors and all need to be addressed to reduce the problem:

- 1. how much water vapour is produced by the actions of its residents.
- 2. how cold or warm the property is.
- 3. how much air circulation (ventilation) there is.



### Common Household Moisture Producing Activities

Our everyday activities add extra moisture to the air inside our homes. Even our breathing adds some moisture. One person sleeping adds half a pint of water to the air overnight and an active person adds twice that rate during the day.

The list below gives you some idea of how much extra water everyday activities could be adding to the air in your home in a day:

2 people at home (16 hours).....	3 pints
A bath or shower.....	2 pints
Drying clothes indoors.....	9 pints
Cooking and use of a kettle.....	6 pints
Washing dishes.....	2 pints
Bottled gas heater (8 hours use).....	4 pints



# Reducing Condensation and Mould Growth

## 1 Produce Less Moisture

Ordinary daily activities produce a lot of moisture. To reduce this:

- Dry clothes outdoors if possible.
- Avoid drying clothes indoors or if you have to, dry them on a clothes airer in the bathroom with the door closed and either an extractor fan on or a window slightly open.
- Vent tumble driers to the outside (never into the home) or buy a condensing type.
- Cover pans when cooking and do not leave kettles boiling on the stove.
- Do not use paraffin or gas bottle heaters. They produce large amounts of water vapour and are very expensive to run!

## 2 Remove Excess Moisture

Always wipe the windows and window sills of your home every morning to remove condensation. This is especially important in the bedroom, bathroom and kitchen - just opening the window is not enough.

## 3 Heating

In cold weather, the best way to keep rooms warm and avoid condensation is to keep low background heat on all day rather than short bursts of high heat when you are in the house. Good heating controls on your radiators, an independent room thermostat and a timer will help you control the heating throughout your house and help manage heating costs.

## 4 Insulation

Insulating and draught-proofing will help keep your home warm and save money on your heating bills.

- Insulate the loft to a depth of 300mm.
  - Consider secondary or double glazing.
  - Consider cavity wall insulation or internal dry lining.
  - Draught-proof windows and external doors.
- When draughtproofing, do not block permanent ventilators or rooms requiring ventilation. Find out if you are eligible for a grant for insulating your home, this may help to reduce your bills.



## 5 Ventilation

It's important to remove condensation and excess moisture by ventilating rooms. You can ventilate a room without making draughts or causing it to become cold. To do this, you may only need to open the window slightly or use the trickle vent that can often be found on new windows. This allows warm moisture laden air to escape to the outside and let cool dry air into the property. Dry cool air is actually cheaper to heat than warm moist air!

- Always ventilate or open a window when using the kitchen or the bathroom and close the doors to prevent moisture in the air from spreading to other parts of the house.
- Continue to ventilate these rooms for a short time after a shower, bath or cooking and keep the door closed.
- Open bedroom windows for up to one hour as soon as you get up.
- Clear window sills of clutter that will restrict opening the window and prevent surfaces from being wiped.
- Leave space between the back of furniture and cold walls for air to circulate.
- Ventilate cupboards and wardrobes, and avoid overfilling them as this prevents air circulating.
- Do not completely block chimneys and flues – fit with an air vent and make sure you meet ventilation requirements for any gas appliances in a room

**Remember – only ventilate for an appropriate period of time (usually between 30 mins to 1 hour), don't leave the windows open all day!**

## 6 Dealing with mould

Carefully remove excess mould with a damp cloth and throw away afterwards, or if possible use a vacuum cleaner and empty afterwards. Do not brush mould as this releases spores into the air. Wipe down affected areas using a fungicidal wash or diluted bleach – remember always use rubber gloves and wear safety glasses. After treatment redecorate using a fungicidal paint – do not paint over using an ordinary paint as mould is likely to grow back. Dry clean clothes and shampoo carpets where necessary.



**Dealing with condensation and mould growth is not easy. Only carrying out one or two of the steps may not solve your problem, you need to do as much as possible every day. Once a balance has been achieved your situation should improve over time.**

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