

# Condensation

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# Cold Surface

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# Damp and Mould

*A simple guide to Condensation prevention*

**Is your home damp?**

[www.mendip.gov.uk](http://www.mendip.gov.uk)  
Customer Services 0300 3038588  
[env-health@mendip.gov.uk](mailto:env-health@mendip.gov.uk)



## **Introduction**

Damp can cause mould to form on walls, ceilings, furniture and even clothing.

Damp housing encourages the growth of mould and mites, and can increase the risk of respiratory illness. Some damp is caused by Condensation.

This leaflet explains how Condensation forms, and how it can be kept to a minimum, so reducing the risk of dampness and mould growth.

## **What is Condensation?**

There is always 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 but it does not leave a tidemark. This is Condensation.

It appears on cold surfaces often on North facing walls, in places where there is little movement of air, in corners, on, or near windows and in, or behind wardrobes.

## **Is it Condensation?**

Condensation is not the only cause of damp.

It can also come from:

- Leaking pipes, wastes or overflows.
- Cracked or missing slates or tiles, blocked guttering, cracked or missing downpipes, penetrating damp around window and door frames
- Rising damp due to lack of, or, failure of, a damp proof course.

These causes of damp can result in the plaster becoming defective which often leaves a 'tidemark'.

If you do not think the damp comes from any of these causes, then it is, probably Condensation.

Air can only hold a certain amount of water vapour.

The warmer the air is, the more it can hold. If warm air holding a lot of water vapour cools down it can no longer hold all the water vapour, and some turns back to liquid water.

This is Condensation.

Sources of Condensation produced by a typical household in a day

- Each occupant breathes out water as vapour every 9 hours (1 pint)
- Washing clothes (1 pint)
- Bathing and personal washing (2 pints)
- Paraffin heaters for 5 hours (3 pints)
- Cooking by Gas for 3 hours (6 pints)
- 6lbs of clothes spin dried in an unvented tumble drier (10 pints)

### **Symptoms of Condensation**

Grey, green, black or brown spots or patches which may spread to form a furry layer on the surfaces of internal decoration of buildings, and pink or purple discolouration on paint.

## **HOW TO AVOID CONDENSATION**

### **1. Put less water in to the air**

- When cooking, put lids on pans, and once they are boiling, turn down the heat.
- Dry clothes outside, if at all possible. If this is not possible, try and dry them in one room that is normally kept warm. Keep the door to this room closed to prevent the vapour spreading, and ventilate.
- If you use a tumble drier, always vent it to the external air.
- Empty the bath when you have finished with the water. The longer the water stays in the bath, the more vapour is created.  
Don't use portable gas or paraffin heaters.

### **2. Stop water vapour spreading**

Although you can't see it, water vapour spreads through the air from rooms where there is a lot of moisture, to areas where there is less moisture.

Therefore, if you leave the kitchen or bathroom door open, water vapour from cooking or bathing, will spread round the house.

When it meets a cold surface it will turn into Condensation, whichever room it is in.

- It is best to shut the kitchen and bathroom doors, especially during and shortly after cooking or bathing.
- If you are drying washing indoors, shut the door to the room where the washing is drying and ventilate the room until it the washing is dry.

### **3. Let the Water Vapour out**

Ventilate. Let the water vapour escape from the kitchen or bathroom.

- Open windows. Only open a small amount, say 20-50 mm or leave the trickle ventilators open when someone is in the room. Close the windows half an hour to an hour after cooking bathing or washing/drying.
- Use extractor fans. Extractor fans and cooker hoods suck the water vapour out from near the source. The best type is one with a humidistat control that only switches on when the air holds a lot of water vapour.
- Ventilate cupboards and wardrobes. Avoid putting too many things in them as this does stop the air circulating. Cut a ventilation slot in the back of each shelf or use slatted shelves. Cut breather holes in the doors and back of wardrobes and the wall.

Where possible, position wardrobes and furniture against internal walls, rather than external walls, which are colder.

### **4. Increase the temperature to the external walls and to the upper ceiling to the roof**

- Insulate the external walls with either cavity wall fill, or insulating material internally using a thermal insulation roll that can be decorated.
- Insulate the roof to the recommended 270mm thickness of insulation quilt.
- Windows ideally to be double glazed and incorporating trickle vents if being renewed.

- Existing single glazed windows to be renovated to eliminate extensive heat loss

## **Heating**

- Apply more heat. No matter how much insulation your walls or roof may have the surfaces will not get warm unless you use some heat.
- Keeping your heating on low during cold weather should prevent the walls from getting too cold.
- Heat more evenly. Try to avoid suddenly heating a room from cold for a short time. If the walls don't get time to warm up, but the air does, you will almost certainly get Condensation.

## **Some further tips to prevent Condensation**

- Keep furniture away from outside walls- try to put furniture against internal walls or party walls. If you can't do this leave a gap behind the furniture.
- Mop up. Almost every home has some degree of Condensation, particularly on windows in cold weather. The best way to stop the problem becoming too big is to wipe the windows and mop up any puddles or drips of condensation.
- Wipe off and treat any mould growth. If you get mould growing wipe it off and treat with bleach or a fungicidal wash. The more mould there is, the easier it is to spread.  
**BE CAREFUL TO AVOID BLEACH OR MOULD KILLERS COMING INTO CONTACT WITH EYES OR EXPOSED SKIN, WEAR SUITABLE PROTECTIVE**

**CLOTHING, AND FOLLOW THE INSTRUCTIONS ON THE CONTAINER AT ALL TIMES**

Dry clean mildewed clothes and shampoo carpets. Disturbing mould, by brushing or vacuum cleaning, increase the risk of respiratory problems. After treatment, redecorate using a good quality fungicidal paint to help prevent mould recurring.

**ENERGY ADVICE**

If you would like some free advice on your heating system and insulation measures, or information on the Green Deal (the Government backed scheme to improve energy efficiency in private properties including the private rented sector).

**Please contact  
The Home Energy team at the Centre for Sustainable  
Energy (C.S.E.) on:  
0800 0822234**

**Alternatively, contact the Energy Savings Advisory  
Service on:  
0300 1231234**

Both these organisations give free independent advice to tenants, landlords and homeowners.