

# Condensation

## What is condensation?

The air in our home contains a certain amount of 'invisible' water vapour. Cooking, showering, bathing, washing and drying the washing indoors all add moisture to the air. Each of us breathe out about 1 litre of water vapour every 24 hours.



The higher the temperature of the air, the more water vapour it can hold. Even in warm, well ventilated homes, moisture in the air can result in condensation during the winter. You can see this on the bathroom mirror when you have had a hot shower or bath when warm air full of moisture chills on contact with the cold surface of the mirror. Sometimes moist air from the bathroom or kitchen may travel to a cold room and condense as water droplets on a cold surface within that room. Usually condensation disperses fairly quickly but sometimes it can be serious and persistent leading to the growth of mould.

## Signs of condensation

- Usually occurs in the coldest months of the year.
- Starts on the coldest internal surfaces — single-glazed windows, on the inside of external walls particularly the corners, lintels and window reveals.
- Visible water droplets form on glass and other non-porous surfaces and run off to cause puddles.
- Occurs most often in rooms where a lot of moisture is produced, such as kitchens and bathrooms, and also in unheated rooms into which moisture has travelled.
- Common where unvented tumble-driers are used or if washing is frequently dried indoors.
- Often concentrates in areas where there is little air movement, such as behind furniture or curtains or inside cupboards on outside walls.
- Persistent condensation often leads to mould growth.

## How to reduce condensation – HIVE

### ○ **HEAT - Increase the Heat**

- Condensation is almost bound to occur in rooms which are cold
- Adequate heating in each room warms up the air allowing it to hold more moisture, it also warms up the internal surfaces of walls and windows etc. which will help to avoid condensation.

### ○ **INSULATION - Increase the Insulation**

- Provided the home has some heating, insulation will help as it slows down the loss of heat
- Insulation also brings the temperature of the indoor surfaces closer to the air temperature which makes condensation less likely
- Of course, if there is no heating, insulation cannot help. This means that improvements to heating and insulation must be considered simultaneously. See the Energy Efficiency section on page 16 for details of organisations that can provide information and advice on grants for heating and insulation.

### ○ **VENTILATION - Increase the Ventilation**

- Ensure there is good ventilation in the kitchen, bathroom and shower rooms where most moisture is generated
- Use extractor fans in the kitchen and bathroom
- All occupied rooms need background ventilation to get rid of the moisture generated by people
- If your windows have trickle vents, open them to improve ventilation.

### ○ **EXCESSIVE MOISTURE - Reduce Excessive Moisture**

- If possible, keep lids on saucepans when cooking
- When there is a lot of steam in the kitchen or in the bathroom, close the doors of these rooms to prevent the moisture travelling throughout the house
- If possible, dry the washing outdoors
- Tumble driers should be vented to the outside
- Wet clothes should not be placed on the radiators.

You may have to use all of the actions above to solve a condensation problem. Condensation is only one of the possible causes of dampness in the home. Other causes include rain penetration, plumbing defects and rising damp. If you are concerned about condensation or damp, please contact Belfast City Council, Public Health & Housing Unit. **Tel: 028 9027 0428.**

**Email: [envhealth@belfastcity.gov.uk](mailto:envhealth@belfastcity.gov.uk)**