

Controlling Condensation and Mould

1 - WHAT IS CONDENSATION?

There is always some moisture in the air, even if you cannot see it. If air gets cold, it cannot hold all the moisture produced by everyday activities and some of this moisture appears as tiny droplets of water, most noticeable on windows on a cold morning. This is condensation. It can also be seen on mirrors when you have a bath or shower, and on cold surfaces such as tiles or cold walls.

Condensation in your home is caused when water vapour comes into contact with cold surfaces and condenses to form dampness or water droplets. The air in a room heated to 20 degrees C will hold as much moisture as a room heated to 10 degrees C. If the temperature is dropped during the night and the rooms are not ventilated, this excess moisture will condensate on the coldest surfaces.

Condensation can appear on or near windows, in corners and, in or behind wardrobes and cupboards. Condensation forms on cold surfaces and places where there is little movement of air.



Problems that can be caused by excessive condensation

Excessive condensation can lead to mould growth on walls and furniture, mildew on clothes and other fabrics and the rotting of wooden window frames. Also, damp humid conditions provide an environment in which house dust mites can easily multiply.

First steps against condensation

You will need to take proper steps to deal with condensation, but meanwhile there are some simple things you should do straight away.

- Dry your windows and windowsills every morning, as well as surfaces in the kitchen or bathroom that have become wet. Wring out the cloth rather than drying it on a radiator, or use paper towels.

First steps against mould growth

First treat the mould already in your home, then deal with the basic problem of condensation to stop mould reappearing.

To kill and remove mould, wipe down or spray walls and window frames with a fungicidal wash that carries a Health and Safety Executive (HSE) 'approval number', and ensure that you follow the instructions for its safe use. These fungicidal washes are often available at local supermarkets. Dry-clean mildewed clothes, and shampoo carpets. Do not try to remove mould by using a brush or vacuum cleaner.

After treatment, redecorate using good-quality fungicidal paint and a fungicidal resistant wall paper paste to help prevent mould recurring. The effect of fungicidal or anti-condensation paint is destroyed if covered with ordinary paint or wallpaper.

BUT REMEMBER: THE ONLY LASTING CURE FOR SEVERE MOULD IS TO CONTROL THE FACTORS THAT CONTRIBUTE TO EXCESSIVE CONDENSATION.

2a - WHAT CAUSES CONDENSATION?

There are four main factors that cause condensation:

- **TOO MUCH MOISTURE BEING PRODUCED IN YOUR HOME**
- **NOT ENOUGH VENTILATION**
- **COLD SURFACES**
- **THE TEMPERATURE OF YOUR HOME**

You need to look at all of these factors to cure a condensation problem.

2b - TOO MUCH MOISTURE BEING PRODUCED IN YOUR HOME

Our everyday activities add extra moisture to the air inside our homes. Even our breathing adds some moisture (remember breathing on cold windows and mirrors to fog them up?). One person asleep adds half a pint of water to the air overnight and at twice that rate when active during the day.

To give you some idea as to how much extra water this could be in a day, here are a few illustrations:

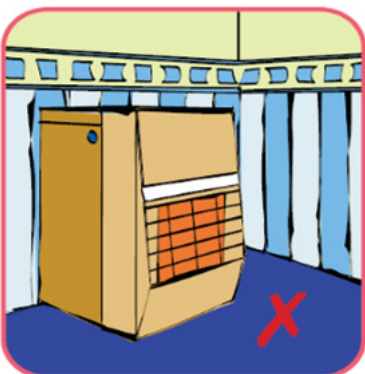
2 people at home can produce	= 3 pints
A bath or shower	= 2 pints
Drying clothes indoors	= 9 pints
Cooking and use of a kettle	= 6 pints
Washing dishes	= 2 pints
Bottled gas heater (8 hours use)	= 4 pints
Total moisture added in one day	= 26 pints or 14.8 litres

Reduce the potential for condensation by producing less moisture

- Hang your washing outside to dry if possible or hang it in the bathroom with the door closed and a window slightly open or extractor fan on. Alternatively, use a tumble dryer. Don't be tempted to put it on radiators or in front of a radiant heater.



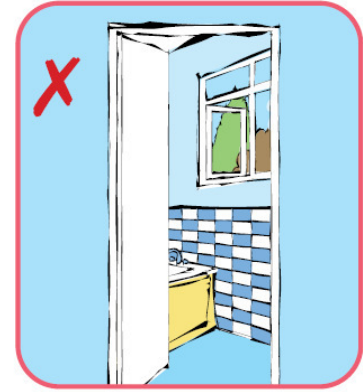
- Always cook with pan lids on, and turn the heat down once the water has boiled. Only use the minimum amount of water for cooking vegetables.
- When filling your bath, run the cold water first then add the hot -it will reduce the steam by 90% which leads to condensation.
- If you use a tumble drier, make sure it is vented to the outside or that it is of the new condensing type.
- Don't use your gas cooker to heat your kitchen as it produces moisture when burning gas. (You might notice your windows misting over).
- Bottled gas heaters should not be used; they produce about 8 pints of moisture from an average-sized gas cylinder. (Tenancy Agreements may not allow the use of this type of heater).



3 - VENTILATION OF THE HOME

Ventilation can help to reduce condensation by removing moist air from your home and replacing it with drier air from outside.

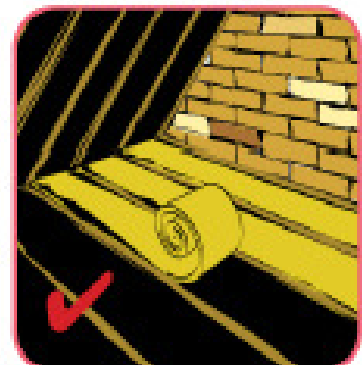
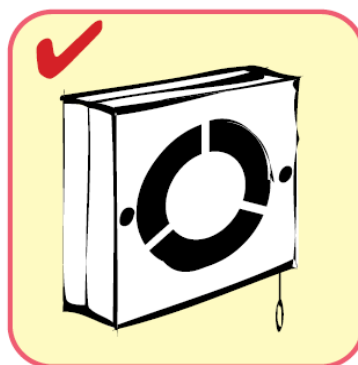
• Help to reduce condensation that has built up overnight by 'cross ventilating' your home - Opening to the first notch a small window downstairs and a small one upstairs. (They should be on opposite sides of the house, or diagonally opposite if you live in a flat). At the same time, open the interior room doors, this will allow drier air to circulate throughout your home. Cross ventilation should be carried out for about 30 minutes each day.



NOTE: MAKE SURE THAT ACCESSIBLE WINDOWS WILL NOT CAUSE A SECURITY PROBLEM - REMEMBER TO CLOSE THEM WHEN YOU GO OUT.

- Ventilate your kitchen when cooking, washing up or washing by hand. A window slightly open is as good as one fully open. If you have one, use your cooker extractor hood or extractor fan.
- Ventilate your kitchen and bathroom for about 20 minutes after use by opening a small top window. Use an extractor fan if possible - they are cheap to run and very effective.
- Ventilate your bedroom by leaving a window slightly open at night, or use trickle ventilators if fitted. (But again, remember your security).
- Keep kitchen and bathroom doors closed to prevent moisture escaping into the rest of the house.
- 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 underneath. Keep a small gap between large pieces of furniture and the walls, and where possible place wardrobes and furniture against internal walls. Pull shelves away from the backs of wardrobes and cupboards. Never overfill wardrobes and cupboards, as it restricts air circulation.

If warm air cannot escape through an open window or air vent, it moves around until it finds a cold surface where it cools and forms condensation.



4 - COLD SURFACES IN YOUR HOME

Condensation forms more easily on cold surfaces in the home, for example walls and ceilings. In many cases, those surfaces can be made warmer by improving the insulation and draught proofing.

Insulation and draught proofing will also help keep the whole house warmer and will cut your fuel bills. When the whole house is warmer, condensation becomes less likely.

Loft and wall insulation are the most effective forms of insulation.

If you install any draught proofing, observe the following guidance:

- Do not draught proof rooms with a condensation problem, or where there is a heater or cooker that burns gas or solid fuel.
- Do not block permanent ventilators or airbricks installed for heating or heating appliances.
- Do not draught proof bathroom or kitchen windows.

5 - THE TEMPERATURE OF YOUR HOME

Warm air holds more moisture than cooler air which is more likely to deposit droplets of condensation round your home. Air is like a sponge; the warmer it is, the more moisture it will hold. Heating one room to a high level and leaving other rooms cold makes condensation worse in the unheated rooms. When doors from these rooms are opened the warmer air with high moisture content escapes and seeks out the colder areas, releases its moisture and condensates on the coldest surfaces. This internal air movement can often be mistaken for draughts.

That means that it is better to have a medium-to-low level of heat throughout the house.

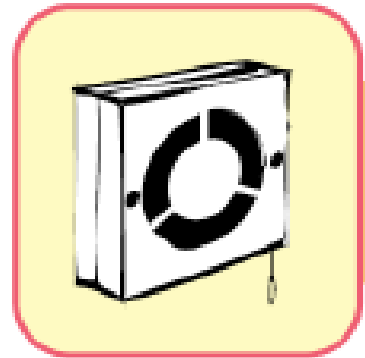
- Keeping the heating on low all day in cold weather will help to control condensation.
- If you don't have heating in every room, you could keep the doors of unheated rooms open to allow some heat into them.
- To add extra heat to rooms without any form of installed heating, it is better to use electric heaters, for example oil-filled radiators or panel heaters, on a low setting. Remember, you should NOT use portable bottled gas heaters in homes suffering with condensation as they give out a lot of moisture whilst in use. Contrary to popular belief, it is actually cheaper to heat a room with on-peak electricity than by using bottled gas heaters.
- If you have a freezer, it is a good idea to put it in a space suffering from condensation, as the heat from the motor may help to keep condensation at bay.

6 - TO CONTROL CONDENSATION REMEMBER THE KEY POINTS



REDUCE THE AMOUNT OF MOISTURE YOU PRODUCE

IMPROVE THE VENTILATION



REDUCE THE NUMBER OF COLD SURFACES IN YOUR HOME

MAINTAIN AN ADEQUATE TEMPERATURE

