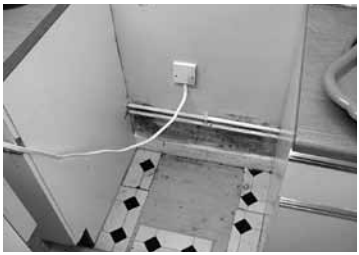
How to help prevent

damp and mould

in your home

Condensation and mould growth

Causes and cures

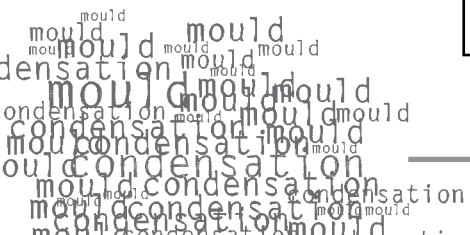


Condensation occurs when water vapour in the air inside the house condenses on a cold surface. It can occur at any time of the year and is seen as misting or droplets on windows, walls, tiled areas, concrete floors and toilet cisterns.

A wall may be cold and attract condensation for several reasons

- Walls of rear extensions in older houses are more exposed and so may be colder.
- It may only be a 4 inch thick brick wall, especially where an old external toilet or coal house has been demolished or incorporated into the main house
- It may be facing north or the room may be unheated.
- A leak from a gutter or pipe may make part of a wall colder

We can supply this information in large print, in audio formats or have it translated into another language. Please call 01305 252314 or 01305 252271.



Mould growth occurs when mould spores germinate on contact with surfaces that are damp through condensation. The mould takes the appearance of small black spots on the wall or window surface.

Water vapour is created by normal, everyday living in your house such as breathing, perspiration, washing, cooking, bathing, drying clothes, and burning fuel.

The average family produces 20 pints of moisture every day. You can reduce this by:

- Keeping lids on pans when cooking, keeping the kitchen door closed and leaving the window open.
- Drying clothes outside or piping the tumble dryer's moist exhaust air to the outside.
- Running the cold water for a bath before the hot water. Leave the bathroom door closed whilst the bath is filling to reduce the spread of steam. When you have finished, open the window wide for an hour or so, or until the last beads of moisture have disappeared from the windows and walls. If there is an extract fan in this room, leave the window closed and leave the fan running for an hour or so.
- Not using liquid paraffin or bottled gas room heaters. These produce 8 pints of water vapour for every gallon of fuel burned.

Remedies for condensation and mould growth

Ventilation: Is the normal escape route for moist air. As the air in your house circulates, it is drawn outside through open windows, doors, trickle vents, extractor fans, airbricks and chimneys and is replaced by fresh air. If this exchange of air is poor or prevented, the air in the house becomes saturated and water vapour will condense on the nearest cold surface. To allow fresh air to circulate you should consider some of these:

- Fit extractor fans to shower rooms, bathrooms and kitchens. Bathrooms require an extract rate of not less than 80 litres per second and kitchens 60 litres per second. A cooker hood is not an extractor fan.

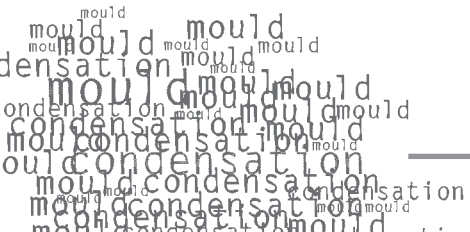
- Open all windows wide until the condensation disappears and then close them, leaving a 1/4inch (5mm) gap between the sash and the frame in each room.

- Ensure that trickle vents are open in double glazed windows.

- Keep bathroom and kitchen doors shut to prevent moist air circulating to the rest of the house.

- Avoid still air pockets - areas between furniture and external walls, and behind heavy curtains will encourage condensation to form, because there is no circulation of warm air to warm the wall and furniture. If it is not possible to put the furniture against an inside wall, leave a gap of at least 3" to 4" (75mm to 100mm). Do not over fill wardrobes, cupboards and chests of drawers.

- Provide heating in the affected rooms. In damp affected cupboards, an electric green house heater can provide sufficient warmth to prevent or reduce mould growth. Similarly, if there is a light fitting within the cupboard, leaving the light on can do the same. (Make sure that there is a large gap between the bulb and any flammables).



Heating: Warm air can hold more moisture than cold air so if your house is heated adequately you are less likely to suffer from condensation. Warm air cooling in the night will still result in condensation, especially on or around windows during cold and wet weather. Most of this will evaporate as heating is turned on again in the morning and windows are opened.

If you suffer from condensation and mould growth on your external walls during the winter, it is important to understand why, and what you can do to prevent, or at least, reduce it.

Your walls store heat. The amount of heat stored will depend upon how heavy the materials are, and the period for which it has been heated.

As the external air cools down, heat is lost to the atmosphere. If the heat is not replaced quickly enough, the walls will continue to cool until they fall below a critical temperature, called the "Dew Point Temperature".

At this stage, you will notice that condensation will begin to occur.

The formation of condensation cools the wall even more, resulting in even more condensation occurring. This will continue happening until you do something about it.

You will notice that:

- Your house, clothing and bedding will feel cold and damp. There will be a musty smell.
- It takes a long time before your heating begins to take effect, your walls stay cold to the touch and you will not feel properly warm.
- Your fuel bills will increase substantially.
- You will find it more difficult to keep yourself warm, especially if you are elderly, ill, or spend a great part of your day in the house

What more can I do?

Do not wait until it starts to turn cold before putting your heating system on. Leaving the heating off until the weather turns cold will result in the walls losing all their stored heat. It will then take a lot longer (and a lot more money) for the heating system to warm them up sufficiently, and for you to feel comfortable.

Do turn it on at the end of September (or earlier if the weather cools), and set the main thermostat to a temperature of not less than 18C. If you have thermostatic radiator valves in your bedrooms, bathrooms etc, adjust these to achieve a temperature of not less than 16C (18C in living rooms). The heating system will then automatically provide enough heat to maintain the structure above dew-point.

Economy 7 or Night Storage Heaters, it is important to listen to the weather forecasts at night and adjust the input control to take account of the temperatures for the next day.

On most Economy 7 or Night Storage Heaters there will be 2 knobs. Generally, the right hand one will control the heat input and the left hand one will control the heat output. The left hand knob (the output control) controls a flap within the heater. To keep the room at a reasonable temperature you will need to adjust it to allow heat to escape gradually through out the day. The control knobs are often marked with the numbers 1 to 10 around the outside.

As a rough guide in mild weather, (outside air temperatures between 10 to 17 Celsius), the input control should be somewhere between 4 and 8. In cold weather (10 Celsius and below), turn it to 8 or above.

These types of heaters will provide the legal minimum of 18 Celsius, but however, this is not a comfortable temperature and you will find that it will probably be necessary to supplement the heating with a convector heater during periods of very cold weather.

Do not over-ventilate by leaving your windows wide open all day in cold weather- your walls will lose all of the heat stored in them.

Do open the windows wide for a short period of time in the morning say 30-60 minutes and then close them up, leaving a small gap between the sash and the frame of ¼ of an inch (5mm).

Do not put your heating on for short periods of time (one hour or less) - this will actually ensure that the problem becomes worse. The air absorbs water vapour more quickly than the walls can warm up. When the heating is turned off, the air cools rapidly and condensation rapidly occurs, cooling the walls further.

Do put the heating on for at least 3 hours at a time. Set your timer to come on at 4 or 5 a.m (when the air is coldest) and to go off an hour after you leave for work. During the day, set it to come on at least an hour before you come home from work and to go off at least an hour after you go to bed. If you are at home all day, put the heating on for not less than 3 hours at a time or leave the heating on full time at a lower temperature.

Insulating your house:

Loft insulation, wall insulation and double glazing will help you to keep the heat in your house longer, walls are warmer and the chances of damaging condensation are greatly reduced. However, these measures will not cure condensation and mould growth by themselves. It is essential that you ensure that you heat and ventilate your home properly.

There are many grants available for owner occupiers and for privately rented accommodation (NOT Housing Association or second homes/holiday accommodation) to provide loft and cavity wall insulation. If you are in receipt of income or disability related benefits you may be eligible for grant aid to cover all of the cost and this may include heating improvements. Tenants are eligible too. To find out more contact:

Dorset Energy Advice Centre free on: 0800 975 0166

Dealing with mould growth

Mould growth is a result of condensation and can be dealt with quite easily :

- Ensure that your home is adequately heated and ventilated.
- Wipe off any condensation that occurs on walls, windows and window reveals.
- Wash mouldy areas with a mixture of bleach and water (one egg cup full to a pint of water).
- Use a paint that contains a fungicide when re-decorating. (These products are not effective if over-painted with ordinary paints or covered over with wall paper).
- Mouldy clothes should be dry- cleaned.
- Carpets should be professionally shampooed.

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