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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 occurs in cold weather, even when the weather is dry. It doesn’t leave a ‘tidemark’ round its edges on walls. If there is a ‘tidemark’, this dampness might have another cause, such as water leaking into your home from a plumbing fault, loose roof tiles or rising damp.

Look for condensation in your home. It 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

Dampness caused by 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. The presence of mould and dust mites can make existing respiratory conditions such as asthma and bronchitis worse.

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.

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 and are often called mould and mildew removers. 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 get rid of the dampness
2 • 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.

2A • 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 ½ 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:

<table>
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<tr>
<th>Activity</th>
<th>Water Added</th>
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<tr>
<td>2 people at home for 16 hours</td>
<td>3 pints</td>
</tr>
<tr>
<td>A bath or shower</td>
<td>2 pints</td>
</tr>
<tr>
<td>Drying clothes indoors</td>
<td>9 pints</td>
</tr>
<tr>
<td>Cooking and use of a kettle</td>
<td>6 pints</td>
</tr>
<tr>
<td>Washing dishes</td>
<td>2 pints</td>
</tr>
<tr>
<td>Bottled gas heater (8 hours use)</td>
<td>4 pints</td>
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</tbody>
</table>

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 at all possible, or hang it in the bathroom with the door closed and a window slightly open or extractor fan on. Don’t be tempted to put it on radiators or in front of a radiant heater.
• If you use a tumble drier, make sure it is vented to the outside or that it is of the new condensing type.

• 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.

• Try to avoid the use of bottled gas heaters; 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).

• Don’t use your gas cooker to heat your kitchen as it produces moisture when burning gas. (You might notice your windows misting over).

### 3 • Ventilation in 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 open. If you have one, use your cooker extractor hood or extractor fan.
Keep kitchen and bathroom doors closed to prevent moisture escaping into the rest of the house.

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).

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.

4 • Cold surfaces in the 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 draughtproofing. Insulation and draughtproofing 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 draughtproofing, observe the following guidance.

- Do not draughtproof 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 draughtproof bathroom or kitchen windows.

If you have reason to believe that your home could benefit from an improvement to its loft or wall insulation, please contact Bedfordshire and Hertfordshire Energy Efficiency Advice centre on 0800 512 012
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. That means that it is better to have a medium-to-low level of heat throughout the house. Keeping the heating on at low all day in cold weather will help to control condensation, but keep a check on your meters to check how much it is costing you.

- If you have a heating system such as underfloor electric but are afraid to use it because you've been told it is expensive to run, please contact Energy Saving Trust for advice on how to control your system please phone FREE on 0300 1231234 or find more information at www.energysavingtrust.org.uk.

- 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 should help to keep condensation at bay.

- Be careful not to ‘over-ventilate’ your home when it is cold, as it will cause the temperature inside to drop and make condensation more likely. It will also increase your heating costs.

- If you think that the heating or heaters installed in your home are insufficient to give enough heat to combat condensation, please contact your landlord to enquire about the possibility of an improvement to your heating.

- If you have a chronic medical condition and require extra warmth, you might wish to contact your landlord or doctor (GP) to enquire about the procedure for obtaining a medical referral for heating improvement.
To control condensation remember the key points

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<thead>
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<th>Reduce the amount of moisture you produce</th>
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<tr>
<td>See actions in Section 2A</td>
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<table>
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<tr>
<th>Improve the ventilation</th>
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<tbody>
<tr>
<td>See actions in Section 3</td>
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<table>
<thead>
<tr>
<th>Reduce the number of cold surfaces in your home</th>
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<tbody>
<tr>
<td>See actions in Section 4</td>
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To see what you can do relatively cheaply on a D-I-Y basis, ring the Energy Efficiency Advice centre.

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<th>Maintain an adequate temperature</th>
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<td>See actions in Section 6</td>
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<th>Energy saving advice and energy efficiency measures</th>
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<td>For general and specific advice please use the Energy Saving Website which can be accessed at <a href="http://www.energysavingtrust.org.uk">www.energysavingtrust.org.uk</a>, there are a range of information topics you can access.</td>
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Useful contact numbers

Bedfordshire and Hertfordshire
Energy Efficiency Advice Centre
0800 512 012

National Gas Emergency Service
www.nationalgrid.com/uk/gas/
0800 111 999

Consumer Focus
www.energywatch.org.uk
0845 04 05 06

Winter Fuel Payments
08459 15 1515

Age UK Advice
www.ageuk.org.uk
0800 169 65 65

Disabled Living foundation
www.dlf.org.uk
0800 882 200
(for people with disabilities and their carers)

If you need energy related advice and don’t know who to contact, ring the Energy Efficiency Advice Centre on:- 0800 512 012. They will be able to provide you with advice and refer you on to other organisations if necessary.

Remember: In the first instance always contact your Environmental Health department at the local Council who will be able to help.
If you would like this information in a different format or language please call 020 8207 7445

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