

Information from the Centre of Sustainable Energy, Home Energy Advice, November 2023

Tackling damp and mould

There are three ways that your home can become damp: through condensation, penetrating damp and rising damp. Dampness is associated with mould, which is unpleasant and unhealthy.

This factsheet looks at each in turn and suggests ways to prevent them.

Condensation

Condensation is the most common cause of damp. When moist air reaches cool surfaces – such as walls, ceilings, windows and pipes – it turns back into water (condenses) making those surfaces damp. Damp surfaces are the perfect breeding ground for mould.

An average household produces around 10 litres of moisture a day through regular activities, such as showering, cooking, drying laundry and even just breathing.

Condensation occurs due to one or more of the following:

- Inadequate ventilation and a build-up of excessive moisture.
- Missing or incomplete insulation resulting in cold spots.
- Inadequate heating resulting in lower surface temperatures.

Mould caused by condensation damp is characterised by black dots.

Two immediate solutions to condensation are, firstly, to produce as little moist air as possible – for example by keeping lids on pans and drying clothes outside – and, secondly, to make sure all the moist air you do produce leaves your home through vents, extractor fans and open windows.

Following the advice in the following checklist will help you do this.

Penetrating damp

The second most likely cause of damp is penetrating damp.

This is where moisture comes through the walls, roof, floor, doors or windows. Penetrating damp may get worse when it rains, especially if it's windy at the same time.

The common causes of penetrating damp are related to the fabric of the building. This includes damaged roof tiles or felt, defective flashing around chimneys, cracks in the render or pointing between bricks, defective guttering, rotting wood or gaps around doors or window frames, and high external ground levels forcing water through the wall.

Be aware that identifying the cause can be difficult because water can travel horizontally as well as vertically, so the damp patch may not be where the water is coming into your house.

The solutions to penetrating damp are likely to be structural. This may include sealing cracks or gaps in the outside of the walls or roof with appropriate materials, replacing damaged roof tiles, felt and flashings, clearing and repairing guttering, or lowering any high external ground levels, where possible. Sometimes these are DIY jobs, though in other cases you may need a professional builder, roofer or damp specialist or if a tenant contact your landlord.

Rising damp

Rising damp is the least likely cause of damp. This is where moisture rises from the ground through the walls of the home. This will leave a 'tide mark' on your skirting board or walls.

The most common cause of rising damp is a defective or non-existent damp-proof course. A damp-proof course is a horizontal barrier, typically made of plastic or bitumen, installed in the walls of a building to prevent moisture from rising through the structure. Some houses did not have damp-proof courses put in when they were built. In other cases, the damp-proof course may have been damaged by subsequent building work. And it is also possible that the ground outside has been raised to a level above the damp proof course, for example, when a patio was laid down.

It is often the case that damp is misdiagnosed as rising damp when it is actually penetrating damp or even condensation. Make sure that you get advice from a specialist who has experience of working with buildings of the same age as yours.

While rising damp is the least likely cause of damp, the solutions to it are often the most complex. It may involve significant building works, such as installing a damp-proof course, digging a drainage channel around the house, or replacing modern cement and gypsum renders and plasters with vapor permeable materials such as lime. In all cases, you will need to get advice from a specialist.

Checklist

The majority of damp issues are caused by condensation and can be rectified by doing things differently in your home. This check list will help you understand what changes you need to make.

Heating

- Make sure that the heating is working well. It may need a service or repair.
- During colder times of year, turn your heating on regularly. This doesn't mean all day, every day, but often enough to keep the home dry. If you can't afford this, then make sure you do as many of the things below as possible ...

Ventilation

- Regularly open external doors and windows throughout the home.

- Open the kitchen and bathroom windows to allow the steam created by cooking, showering or having a bath to leave the building.
- Check your existing extractor fans are clean and working correctly. Make sure they turn on automatically or are turned on every time steam is being produced.
- Make sure trickle vents on windows are kept open. Or permanently leave bathroom and kitchen windows slightly open (using the security latch).
- Make sure that the vents and airbricks aren't blocked or covered up. If the vent has a cover, move it to the open position.
- If you notice mould behind sofas or other furniture, move them away from the walls to allow air to circulate around the back.
- If there are lots of people or pets in a small space, increase the ventilation; we produce a lot of moisture just by breathing!
- Use a humidity meter (also called a hygrometer) to find out which rooms need to be ventilated regularly. For more on hygrometers, see overleaf.

Reducing moist air

- When cooking, keep lids on pans to trap the steam in the pot. This also reduces the cooking time.
- Keeping doors closed will stop the moisture from moving around the home, especially your bathroom and kitchen doors when you're showering or cooking.
- If you can, avoid drying laundry inside.
- If it's not possible to dry laundry outside, use the spin cycle on the washing machine twice to reduce the amount of water held in the fabric. Use a tumble dryer or hang the washing in a room with the internal door closed and a window open.
- Make sure clothes are completely dry before putting them in wardrobes and drawers.
- Do not use portable gas heaters indoors as they make the air very moist.
- In severe cases, use a dehumidifier.

Treatment for mould

- Treat the visible mould with a spray containing bleach and allow to dry, then repeat.
- To kill the invisible mould spores, treat an area at least 1 meter wider than the mould patch with a spray containing bleach.
- Repeat the treatment every time it reappears. It can be frustrating and time consuming, but it will be worth it to stop the mould getting worse.
- Dispose of furniture, soft furnishings and wallpaper that are too badly affected for treatment to be effective

Hygrometers

Hygrometers measure how moist the air is in your home, known as the humidity level. 100% humidity is extremely wet; 0% is completely dry. Mould grows at around 60% humidity and above, so to stop mould forming, try to keep the humidity level below this.

A hygrometer – which can be bought for as little as £8, can be used to show what causes humidity in your home to rise, for example drying laundry inside and cooking and what causes it to fall, for example opening windows or turning on extractor fans.

It will help you understand when you need to do more to lower the humidity, and when you can feel confident when you've done enough.

Dehumidifiers

Dehumidifiers reduce the amount of moisture in the air. They can help resolve condensation issues in your home, especially if you can't follow all of the actions on the checklist.

- Set your dehumidifier to under 60% humidity if possible.
- On warm, dry days, opening a window will be just as effective as running a dehumidifier.
- If you close the doors and windows in the room where the dehumidifier is on, it will work more efficiently.
- Buy a dehumidifier that will remove at least five litres of water every 24 hours. Avoid smaller, cheaper models. Decent dehumidifiers start at around £100.
- A good dehumidifier costs around 17p per hour to run (based on a price for electricity of 27p per kWh, November 2023)