

# What is condensation?

Condensation is an extremely common problem in properties of all types and ages, and occurs as a result of an imbalance of moisture vapour in the air, ventilation, heating, construction type and surface temperature.

Condensation is increasingly found in modern homes, particularly where there are not adequate systems to improve ventilation and air circulation.

Moisture in the air, produced by cooking, bathing and drying of clothes, condenses back into water when it comes into contact with cold wall and window surfaces. This condensation produces ideal conditions for the formation of black spot mould - which is often the most obvious sign that condensation is occurring.

When mould appears in a property, this is usually the first point when the householder becomes aware of the problem. Where mould growth is not noticeable, condensation can still be occurring in areas such as roof spaces, and subfloor voids. This in turn may lead to increased moisture within the structural timbers, making them susceptible to fungal attack.

## Condensation Damp

Condensation is arguably the most common form of dampness with 1 in 5 homes in the UK affected. It's caused by an excess of moisture in the air that reacts with a cold surface such as a wall.

Tell tale signs of condensation include streaming windows and walls, deterioration in decoration such as discolouring of window panes and eventually the growth of black mould.

There are ways you can help to reduce condensation in your home such as; wiping down cold surfaces and keeping kitchen and bathroom doors closed.

## What is damp?

Penetrating damp or moisture penetration is caused by water leaking through walls, rather than rising up through them. It refers to lateral movement of moisture through building fabric.

Penetrating damp is more common in older properties that do not have cavity walls and is commonly caused by poor external maintenance - such as failed guttering, discharging overflows, roofing problems and issues with the walls such as defective pointing - or by abutting structures that have interfered with guttering and drainage systems.

When there is penetrating damp, you can see moisture penetration on internal wall surfaces, such as damp and discoloured plaster and decorations. These patches of moisture are likely to be at a higher level on external walls and they are likely to get more noticeable when it rains.

# What Causes Damp?

Damp and mould are caused by excess moisture. Moisture in buildings can be caused by leaking pipes, rising damp in basements or ground floors, or rain seeping in because of damage to the roof or around window frames. The most common form of damp is condensation, condensation forms when warm moist air touches a cold internal wall or surface. Any building or plumbing problems that allow water/moisture into the property can lead to damp problems.

## Identifying Damp

Damp problems can be a serious concern in any home. At best it can be a nuisance and make a room feel cold, unwelcoming and unhealthy, and at worst it can indicate structural or weatherproofing issues.

Damp problems tend to be at their worse during the winter however if left unresolved damp can be an issue all year round. You can spot the signs of damp on walls and ceilings, your walls may feel cold and look wet whilst ceilings will look stained and discoloured.

Basically the affected areas are colder than the rest of the wall creating a dew-point on the walls where the moisture from the ambient air within your property condenses more readily than the higher temperature surroundings.

## Is There a Cure to Condensation?

The reason condensation appears in your property is due to a lack of adequate ventilation which causes humidity levels to rise. As we spend more time indoors and make our property more energy efficient the build-up of moisture and humidity levels increase.

There are three basic ways to control the problem of condensation, by looking at relative humidity, ventilation and insulation:

- Control humidity. Control the relative humidity in your home through the use of extractor fans in kitchens and bathrooms.
- Provide ventilation - ensure there is adequate ventilation throughout the property.
- Add insulation.

In fact, four people living in a 3 bedroom property would create **112 pints of moisture a week** from just breathing, cooking, showering and boiling the kettle.

# How to remove mould

Protect yourself from mould spores by wearing goggles, long rubber gloves and a mask that covers your nose and mouth. Open the windows but keep doors closed to prevent spores spreading to other areas of the house.

- Have a plastic bag ready to take away any soft furnishings, clothes and soft toys that are mouldy. Soft furnishings should be shampooed and clothes professionally dry cleaned.
- Fill a bucket with water and some mild detergent, such as washing-up liquid or a soap used for hand-washing clothes.
- Use a rag dipped in the soapy water to carefully wipe the mould off the wall. Be careful not to brush it, as this can release mould spores.
- When you've finished, use a dry rag to remove the moisture from the wall.
- Afterwards, put the rags in a plastic bag and throw them away.
- All the surfaces in the room should be thoroughly cleaned by either wet wiping or vacuuming to remove any spores.

## Quick Tips to Reduce Condensation in Your Home

### 1. Ensure Washing Machine Is Correctly Vented

If you have a washing machine or tumble dryer in your property, ensure that it is vented correctly. From just one load of washing two litres of water is emitted into the air, this effect is only magnified if the machine is fitted in a kitchen as cooking will only add to the condensation.

### 2. Dry Clothes Outdoors

Where possible, try to dry your clothes outdoors to prevent excess moisture from building up in your property. If you are unable to dry your clothes outdoor then keep them in a bathroom with the door closed and windows open until the clothes are fully dry.

### 3. Close Kitchen & Bathroom Doors

Bathrooms and kitchens are the worst culprits for condensation. When cooking food, boiling the kettle or taking a shower, ensure that your kitchen or bathroom door is kept closed to prevent the moisture in the air from going into colder rooms which will cause condensation to form if it touches a cold surface.

### 4. Use Pan Lids When Cooking

When cooking ensure that you cover your pans with a lid to reduce moisture being created from the water boiling. Also, ensure you are using an extractor hood if you have one above the cooker or an extractor fan if you have one installed, these are designed to help reduce moisture created when cooking.

Remember, don't turn off your extractor fan as soon as you finish cooking as the moisture can still be in the air even when you have finished, instead leave it on afterwards for 10-15 minutes to help to clear the humid air. Another option is to purchase an extractor fan with intelligent humidity sensors which speed up when you start boiling water and slow down once humidity levels have returned to normal.

## 5. Turn on Extractor Fan When Taking a Shower

Similar to when cooking in the kitchen, when you are taking a shower or having a bath ensure that you turn on your extractor fan to remove the steam and moisture that is created when running warm water in a cold environment. This will help reduce the amount of condensation that appears on your bathroom windows and walls.

## 6. Stop Using Portable Gas & Paraffin Heaters

Portable gas bottles and paraffin heaters produce a lot of moisture, along with a lot of toxic fumes. Not only is this form of heat causing excess condensation in your property, it is also a health and safety hazard which is stated in most tenancy agreements as not allowed in rented flats.

## 7. Cover up Fish Tanks & Aquariums

Many families have house pets and plants which produce a lot of moisture. Make sure you cover up your aquarium or fish tanks to prevent excess moisture. If damp patches start to appear on your walls or you start to notice more surface condensation on your windows and walls near to your house plants then look to move them outdoors.

## 8. Wipe down Cold Surfaces

If you don't have an extractor fan in your bathroom or kitchen then make sure that you wipe down any cold surfaces when you have been cooking or taking a shower to remove any moisture that may have settled on the surface. This excess moisture in the air sits on the surface and will quickly turn to mould if left untreated.

## 9. Don't Overfill Wardrobes & Cupboards

Do not overfill your wardrobes or kitchen cupboards. A lack of ventilation and air moisture trapped in warm overfilled cupboards can become a breeding ground for mould as the air is not able to circulate freely inside. You might notice a musty smell or clothes might have a damp feeling to them which is a sure sign that the cupboard is overfilled.

## 10. Move Furniture Away From External Walls

For the same reason as above, make sure that your furniture is at least 50mm away from the surrounding walls so that air can circulate around the property. Try to ensure that your wardrobes are placed against internal walls in your bedroom which will be less cold than external walls and less likely to cause damp and mould problems.

## 11. Ensure Your Property Has Adequate Heating

Ensuring an adequate amount of heating in your property will improve the internal temperature of surfaces in the house and reduce the likelihood of condensation. Also, make sure your home is energy efficient by ensuring you have insulated walls and double glazed windows installed so the heat doesn't escape from the property.

## 12. Open Windows When Weather Outside Is Warmer

If you use a room on a regular basis, such as a living room and the weather is not cold outside, open a window slightly to improve the ventilation in the room. Breathing is a major cause of condensation so this will help to improve the ventilation in your property.

## 13. Check the windows

Over time the sealant around your windows may become damaged and start to allow rain to seep into your home. The water entering the property will cause an excess in the moisture levels resulting in condensation. This type of condensation is known as exterior condensation as it allows the moisture in from outside.

## 14. Monitor the moisture

Condensation is the result of excess moisture and is something that can sneak up on us, by investing in a moisture meter you can keep track of these levels before it's too late.

## 15. Check the exterior for any damage

Have a good inspection of the exterior of your property, look for cracks and any damage that could be letting water in. Over time parts of your property deteriorate, so it's best to look into replacing window panes or the whole window or having the roof re-done.

## 16. Use bath mats

Make sure you have a decent size bath mat for your bathroom to avoid saturating bathroom floors when getting a bath or shower. The bath mat should help soak up some of the moisture, helping to reduce the condensation in the room.