

## Condensation Related Damp and Mould

### Causes & How to Manage It

From Autumn onwards I inevitably receive messages from tenants regarding damp and mould on walls - most commonly concerning:

1. any wall area below a window, whether ground floor or first-floor ( this most commonly affects the ground floor front bay window area)
2. any wall which is an external wall and permanently covered by an item of furniture (more common in the upstairs rear bedroom which typically has the most external wall area)

Whilst damp can be caused by rising damp (though only on the ground floor and only up to a height of 1.5 m) or penetrating damp (usually caused by a leaking gutter or downpipe) all of my houses were assessed for damp at point of renovation and, where necessary, the walls treated with a damp proof course.

In fact, the majority of "damp" or "mould" problems that occur in the Edwardian properties which I let are caused by condensation and much of this can be avoided by simply ventilating the room, opening curtains to let in light and warmth during the day and avoiding drying clothes in a room.

On numerous occasions I have witnessed a "damp/mould" problem within a room disappear as soon as I have a change of occupant. This is usually because, whereas some occupants seem particularly averse to opening windows and curtains, others thrive on fresh air. Personally I can't sleep unless I have a window open.

However, as already mentioned, certain rooms or locations within my houses are more prone to suffer from this problem regardless of the nature of occupancy and the problem is more prevalent during the cold and wet winter months. So how can this problem be managed?

#### Reasons for Mould and Damp Caused by Condensation:

Basically, condensation occurs when moisture laden air meets a cold surface. In more detail, the reasons for mould caused by condensation are:

- a. **Exterior walls become cold.** The exterior walls of houses become cold. Houses of this age (approx 1910 construction) have solid brick walls with no cavity therefore they are less well insulated and the cold penetrates more easily. With the sun low on the horizon during the winter and adjacent houses nearby blocking light many exterior walls receive very little sunlight to warm them during the winter months - especially where they are North or East facing.
- b. **High humidity levels.** During the winter there are high humidity levels in the air because Britain (South Wales in particular) is a very wet place to live in during the winter with relatively high levels of rainfall. To make matters worse, because it rains so often during winter tenants have a habit of drying their clothes inside their house on radiators etc which increases the humidity even further.
- c. **Lack of ventilation.** Because it is cold during winter tenants are often reluctant to air their rooms by leaving the windows open. Ironically double glazed windows actually exacerbate the problem of condensation since, when well fitted, they reduce the natural ventilation made available by more drafty timber windows.
- d. **Low light levels + Curtains left closed.** During the dark winter tenants often get up while it is still dark in the morning and leave their curtains closed all day long. Because a dark environment encourages the growth of mould and closed curtains stop warm air from the central heating reaching the window area this tends to exacerbate the problem. Closed curtains also stop light from heating the room **FOR FREE!**
- e. **Furniture against exterior walls.** Another factor which leads to damp or mouldy areas occurring on the inner face of exterior walls is the placement of furniture against such a wall. When an item of furniture is placed against an exterior wall it inhibits the circulation of warm air to this section of the wall. Therefore, this area of the wall will be more prone to becoming damp due to condensation.

- f. **Windows cooling the air.** In addition, areas below windows are especially prone to condensation as air within the room tends to cool when it comes against the window. This cooler air then drops below the line of the windowsill and because of the high humidity during winter can lead to condensation and mould forming below window lines. Condensation dripping off windowsills onto the walls below can make matters worse.

### **How to Manage Mould and Damp Caused by Condensation:**

Obviously we cannot change the fundamental construction of Edwardian/Victorian houses or the weather, however, the following measures will greatly improve the situation:

- a. **Open windows to air rooms.** Ventilate/air rooms by leaving a window open whenever possible for as long as possible during the day. Most UPVC windows, where fitted, have the ability to be left open slightly ajar yet still in a locked position. This is especially important in the kitchen when cooking and in the bathroom after taking a shower. Equally don't over ventilate as this can cause too much heat loss which can cool a room down and cause condensation. It's important to achieve the right balance.
- b. **Open curtains before going to work** and heat your room naturally **FOR FREE**. This will allow light into the room which inhibits the growth of mould. For longer curtains which descend below the windowsill line, opening them will allow warm air and light to reach to reach the wall below the window - an area which is otherwise highly susceptible to mould and damp caused by condensation.
- c. **Dry your clothes outside on a clothesline or use a tumble dryer.** For those eco-warriors among us averse to the tumble dryer this may mean planning your washing around the weather forecast so that you can hang clothes out to dry on a dry day.
- d. **Use sufficient central heating** – if a house is not adequately heated it will be more prone to condensation. Therefore, please familiarise yourself with the various central heating controls and ensure that the heating is well managed. The boiler has a programmable timer for central heating so ensure the clock is set to the correct time and that the central heating is set to come on automatically when needed. The boiler also has a temperature control knob to set the heat of the water being sent to the radiators – when the weather is very cold this can be increased. In addition, a room thermostat is located in the living room which switches the boiler off when room the temperature reaches the temperature set on the dial (typically set to between 18 and 21 degrees). This ensures the central heating is not running unnecessarily and inefficiently so don't set this too high. For localised room control each bedroom has a thermostatic radiator valve. Finally, please **DON'T LEAVE A TOWEL ON YOUR RADIATOR** as this greatly reduces the heat output from the radiator to your room.
- d. **Wipe down the condensation from windows windowsills and frames.** If you have not been able to open a window to ventilate the room you should regularly wiped over your windows with a cloth to remove the condensation - especially in the morning.
- e. **Clean any mould before it damages the paint work.** Using a soft cloth and a gentle bleach based cleaner (any bathroom or kitchen cleaner), it is quick and easy to wipe off mould that develops due to condensation as long as you do not leave it too long. If the underlying paintwork has been stained or damaged in any way, please notify me and I will visit to redecorate this area of the room with anti-mould paint.
- f. **Move items of furniture away from the exterior wall.** In some cases, it may be a good idea to move an item of furniture away from a wall, possibly by a few inches, in order to allow the wall to breathe and to receive warm air from the central heating. I sometimes have to ask tenants occupying first floor rear rooms to move their bed slightly away from the wall for this purpose as these rooms seem to be particularly prone to this problem due to the large area of wall surface which is an exterior wall – except in recent renovations where I have clad the room internally with thermally backed plasterboard . This is also a problem in some houses when sofas are placed against the exterior wall of a living room.
- g. **Cover pans when cooking and do not leave kettles boiling**

## Other Possible Causes of Damp:

Apart from condensation damp/mould can also be caused by either:

- a. **Rising damp** due to moisture in the ground below the property rising up the walls. However, it is unlikely that this is a problem in any of the houses which I let as all of them were assessed for rising damp prior to renovation and, where necessary, treated by injecting a "damp proof course" in order to prevent this problem.
- b. **Penetrating damp** - this is usually caused by a leaking gutter or drainage downpipe (most leaks can easily be seen on a rainy day), or by cracks in the external render to the wall or weak/loose mortar joints in the brick/stone work and occasionally by problems with the roofing.

Hopefully these notes will help you to avoid the problem of damp/mould caused by condensation. However, if you do believe that you have a problem, please contact me as there is always the possibility that there is penetrating damp due to a leaking gutter or cracks in the exterior render etc. In addition, if you have wiped away any mould/mildew from a wall and would like me to visit in order to redecorate I will be more than happy to do so. I use anti-mould paint for susceptible areas and have found it to be very effective.

### NOTE:

1. during recent renovations I have had some external walls clad internally with thermally backed plasterboard. This does greatly help the problem and improve energy efficiency, but is a time consuming and expensive solution requiring several days work and requires the room to be completely emptied, old render removed, and possible modifications to electric sockets and other wall outlets, radiators and windows. So I only intend to do this when in the future I close houses down for re-renovation.
2. your house has 270mm loft insulation in accordance with current regulations for new-build properties