

## How to Fix Damp and Mould

### INTRODUCTION

#### Long-Term Solutions

You'll know you've solved the problem correctly when the immediate actions (see separate section) are maintained.

If you are unsure what the cause is (or are), use an independent specialist damp surveyor so the problem is correctly identified, and no money is wasted on unnecessary works.

Reputable damp and ventilation companies may provide the same information for less money but may not be as impartial.

Whatever the cause, a long-term solution is needed. Simply cleaning or painting over surfaces is not a solution.

Swale Borough Council can work with Landlords to inspect the property to make sure the house complies with legal standards on damp and mould in rented homes.

#### Tackling a Condensation problem



*1 Mould formation on the coldest surfaces*



*2 Ceiling condensation due to a lack of surface warmth, insufficient air change or both*

#### Step 1 – Maximise the Heating Type and Efficiency

- Many gas boilers and electric radiators are or have become inefficient over time. Consider replacement(s)
- Look at changing the controls so the boiler is thermostatically controlled 24/7 - so it will always turn on automatically if the temperature drops too far. Some also change the heating depending on whether people are at home or not (based on phone location).
- Ensure the boiler system is serviced annually to avoid inefficiency from sludge build-up.

- Ensure that a programmer and Thermostatic Radiator Valves (TRVs) are installed to allow room-by-room temperature regulation and to schedule heating efficiently according to your daily routine.
- There are 'smart' radiator valves that allow the radiator to demand heat from the boiler when a specific room gets too cold and can turn themselves up or down at different times of day.

## Step 2 – Improve the ventilation

Just because a room has an extractor fan in it (even a new one) does not mean you are getting ventilation. As a crude check, if you are running on intermittent fans, put a piece of tissue paper against each fan- they should grip it firmly.

Ensure you have the correct amount of trickle vents for the type of ventilation system you are running.

There are generally 4 different types of mechanical ventilation. When upgrading ventilation to tackle condensation and mould, the most effective solutions are options (2) and (3).

1. Intermittent Fans (Fans that go on and off with a switch or pullcord).  
These have to achieve high flow rates. Many new ones rarely these in situ. They also typically rely on 3 or 4 trickle vents in every room which have to be kept open 24/7. This is not acceptable to most people due to draughts. In many properties there simply isn't the room for the right number of trickle vents.
2. Constant running extraction systems ('MEVs' or 'dMEVs'):  
Less common and more expensive, but they provide considerably more air-change, are more energy efficient and only ask for one or two open trickle vents in fewer rooms. Running costs will be higher than intermittent (perhaps a few more pennies per day) but the air change will be transformed, and the heating will work more efficiently.
3. Positive Input Systems (PIV):  
Can usually dispense with the need for extraction fans or the trickle vents. Most are loft-based systems and some models have an element of heat. There are versions for flats too.
4. Heat Recovery (MVHR)  
The gold standard but many times more expensive and impractical for all but New Builds or complete renovations. Relatively modern bungalows can be an exception to this.

The performance of all mechanical equipment can diminish over time and the more complex ones need more maintenance - though most are easy. The cheaper the unit, in general, the less maintenance is possible and the more they need to be replaced.

## Ventilation Work quality and running costs Ensuring your contractors do a good job

With all extraction fans wherever possible;

- send them straight through the wall, not through the ceiling
- ensure you can identify the outlet outside;
  - is unobstructed
  - has air coming out of it

If fans have to be connected to ductwork

- minimise bends and distance
- avoid fans with blades that look like propellers.

If the ductwork is flexible rather than rigid, ensure it is

- straight
- taught
- not squashed or damaged,
- not unsupported anywhere
- runs away downhill
- is kept away from cold spaces like lofts unless wrapped in insulation

### Step 3 – Keep More Heat in

Poorly insulated homes are more prone to mould and excess cold

- Investment in energy efficiency measures, such as improvements to heating systems, loft and wall insulation and glazing can be an effective means of increasing indoor temperature but be aware this must be managed correctly and nearly always balanced by better ventilation.
- Try to identify what can be done to improve the property's energy efficiency. Loft insulation should be at least 270mm. Many, maybe most, properties have less than 100mm.
- Areas suffering black mould are indicating they are too cold. If, for example, there is mould on certain parts of the ceiling, it means those parts of the ceiling lack effective insulation above them.
- Improve external / internal wall insulation.
- Insulate hot water tanks and pipes, especially any in the loft.
- Consider thicker carpets and curtains to retain heat.
- Consider replacing single glazed windows with double glazing
- Address true draughts (carpets and curtains may help here too)
- These improvements are important and correct but will almost certainly trigger the need for improving the ventilation.
- Any double-glazing with condensation between the panes need replacing.

- If some localised places are particularly worse than others, internal wall insulation can help by keeping it warmer but be aware it may just move the problem until a permanent solution is in place.

When you improve the insulation or air-tightness of the property, you also need to improve the ventilation. You may not be required to meet all the current regs but this will happen eventually, so it is probably more financially efficient to do this all in one go.

#### **Step 4 – Encourage better air Movement around the property**

- Ensure all the doors have the appropriate minimum gaps underneath them (check them when they are closed).
- Most doors need a minimum 10mm uninterrupted gap. If you have fire doors then this gap may need to be no more than 3mm so bear in mind the ability for good/bad air to get into/out of that room will be restricted.

#### **Step 5 - Other : Paints / Air Bricks & Passifyer vents, Dehumidifiers**

- Moisture from inside the property will not be cured by Damp Seal paint. Such paint is designed for leaks that have been fixed. Please refer to the appropriate type of damp for the correct solution.
- Fungicidal paint, like a dehumidifier, does not stop the core problem(s) and should only ever be considered a temporary measure.
- Air bricks are better than nothing most should not be considered part of a correct ventilation system. Their airflow rates are often uncontrollable, unreliable or limited, dependent on the type.  
They often either make the place too cold. At different times, the same brick can give too much or too little air change. It depends on the outside wind speed and direction.
- Dehumidifiers are ideal for traumatic damp but inappropriate in the long-term for condensation damp. They consume a fair amount of energy and have regular maintenance requirements to stay efficient.  
Unlike ventilation, they do not improve Indoor Air Quality, just humidity. If deploying them, use one per room and keep the door closed in use. Night is usually the most important time for them to be on.

#### **Tackling a Penetrating / Rising Damp Problem**

An independent damp surveyor is the most reliable starting point here to make sure the problem is correctly identified and money is not wasted on un-necessary works.



3 Penetrating damp



4 Rising damp

Reputable damp companies may provide the same information or potentially more detailed information for less but they make a living by selling their solutions and this needs to be borne in mind.

### **Tackling a Traumatic Damp Problem**

Though traumatic problems are usually simpler to diagnose and less likely to need a specialist, an independent damp surveyor may still be the most reliable starting point to make sure the problem is correctly identified and money is not wasted on unnecessary works.

This may be particularly important if the water ingress has been going on for a long time, in which case there is always the risk of secondary damage that a surveyor or damp firm may be better placed to check and advise on than a plumber, roofer or builder.



5 Traumatic damp