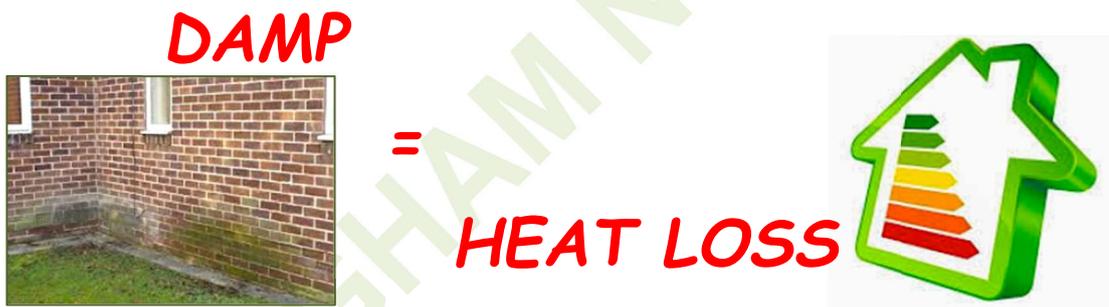


External maintenance for energy efficiency

This guide is relevant to all properties, but is particularly relevant to older houses with solid walls or very thin cavities. In general, this means properties built before the 1940s.

❖ What does external maintenance have to do with energy efficiency?

- Energy efficiency isn't just what goes on inside your home – it's also about looking after the outside. There are a number of important things you need to look out for. Regular maintenance can help keep heating costs down.
- The key issue to remember is that you have to keep your property as dry as possible:



- Houses are designed to shed rain and stay dry but unless a little maintenance care is given, things can go wrong. Walls lose 40% more heat when damp and this really can add to your heating bills. Avoidance of damp is therefore really important for solid wall properties like many of those in Barningham.

❖ Keeping the rain out

- Well maintained roofs, gutters and down pipes are essential. Damaged roof tiles, blocked gutters and leaking down pipes can all make walls damp.
- Keep an eye on your roof and inspect for damage after storms. Fix any obvious leaks as soon as possible.
- Look out for vegetation growing or blockages in your gutters and get them cleaned out as soon as possible.

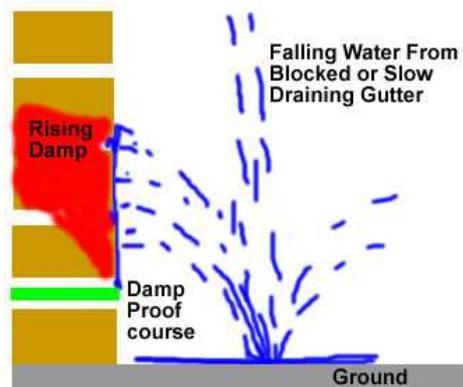
- If there are trees nearby, you should check and clean your gutters after the autumn leaf fall.
- In all other cases, an annual inspection is always worthwhile for enabling any problems to be identified and rectified before major damage occurs.



Examples of loose slates, leaking down-pipes and blocked gutters



Falling Water Hits ground, bounces and hits wall above the damp-proof course



Examples of penetrating damp and rising damp mechanisms

Images from <http://www.tylerandsonsroofing.co.uk/roof-maintenance.htm>

❖ Preventing damp walls

- Even if your roof and gutters are working well, water can still get in through the wall itself, or come in at ground level.
- Damaged pointing is one obvious route – this should be repointed as soon as possible.
- Cement and pebbledash renders can also cause problems, particularly on older houses. Many older houses were originally built of brick or stone without render but have had modern cement renders added. If the original building was designed to 'breathe', adding a render can cause problems with damp build up.
 - Cement renders are impervious but, if they crack, rain can get in and won't be able to escape, meaning that walls can become damp.
 - Cracks should be repaired as soon as they are observed.
 - In advanced cases, hard renders should be removed entirely. Then the surface can be repointed or re-rendered with a breathable lime product suitable for solid stone houses.



Cracked render and damaged pointing

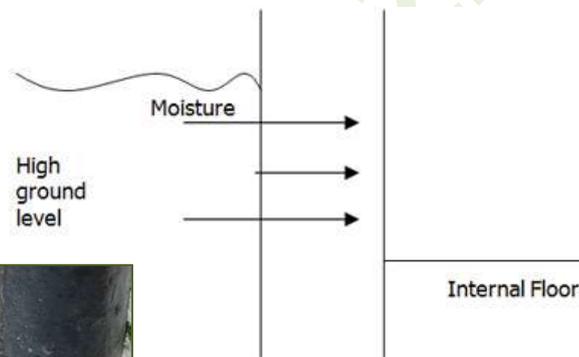


- You should seek expert advice for serious problems. The Durham County Council Conservation officer may be able to visit to discuss your damp issues. The Society for the Protection of Ancient Buildings (SPAB) also has plenty of advice for old buildings – see: <http://www.spab.org.uk>

❖ Stopping damp at ground level

- Sometimes drains and gullies can become blocked. This means that heavy rain might back up and soak the base of a wall. Keeping drains and gullies clear should be a routine activity.
- Newer homes have a damp course which prevents water from coming in above ground level. However, if you live on a slope, sometimes the drain can be above the damp course. Older houses don't have damp courses, so this can become a major issue.
- Over time, it's also possible that plants, soil and debris build up, making the external ground level above the damp course or floor level. This means damp can get into the wall. So, keep an eye on ground levels. Sometimes it is worthwhile digging out to return ground level to its original level.

Blocked drains and effect of elevated ground level



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