

## INSIDE YOUR HOME – MAINTENANCE

**Give your home a regular overall inside maintenance check and attend to a problem before it gets worse. We show you how to limit the damage and save money.**

If you think small cracks, mould and odd smells in the house are not major problems with the structure of your home then think again. It could be a “tell-tale” for water damage, destructive pests or deterioration, so it is best to detect the problem and repair it before the damage advances. Here are some tips on ways you can maintain your home.

### MAINTAINING THE ROOF SPACE

Your roof frame and ceiling rafters can warp or deflect over time and usually there is little chance of a serious problem developing - but, re-roofing with a material heavier than the original covering can do serious damage unless the roof framing is strengthened.

If you notice unusual smells when examining the roof this could indicate the intrusion of animals or water. Animals and insects can cause damage such as stained ceilings and chewed wiring so remove them as soon as possible and get an electrical safety check once the pests are gone.

Make sure your roof insulation is appropriate for your climate, spread evenly throughout the roof space and kept well clear of downlights, electrical transformers and other heat generating devices. Check it after the space has been accessed by a tradesperson – they are not always the most diligent in leaving the space as they found it! Uneven or inadequate insulation can lead to heat leakage or uneven heat gain and increased energy bills. Electrical hot spots can be a serious fire hazard.

Ideally, replace all downlights with surface mounted fittings – as this will enable continuity of ceiling insulation, enhancing thermal performance and saving you on energy costs.

### MAINTAINING CEILINGS AND WALLS

Most plaster walls will crack in time, but provided your footings and foundations are sound, often all that is required is to patch cracks when re-painting to improve appearances.

Recurring cracks may indicate a structural problem and warrant further investigation. Condensation and roof leaks may eventually cause the walls and ceilings in old homes to bulge as the plaster, fixings or framing deteriorates. If the bulging plaster sounds hollow (or drummy) when tapped, re-plastering or new plasterboard may be required.

If your house is brick, check the walls regularly for rising damp, which is caused by a breakdown of the damp-proof course, brought on by damp external conditions and often made worse by inadequate sub-floor ventilation or poor site drainage. Take care that you don't create external garden conditions which give rise to rising damp by covering sub-floor vents, or laying beds hard up against walls above the damp-proof course. Lower external ground and paved levels to be lower than sub-floor ground to mitigate damp residing in sub-floor voids.

If your house includes a trussed roof system – commonly used from the 1990's onward, check whether ceiling linings are secured directly to the undersides of trusses. This can lead to delamination of ceiling linings and collapse – especially in large spanning ceilings. Ceilings should be secured to a batten system which can moderate structural movement to protect ceiling linings flexing excessively.

## MAINTAINING LIVING CONDITIONS INSIDE THE HOUSE

You should aim to maintain a reasonable circulation of air in the house, to prevent stale air, excessive humidity and condensation, all of which may affect your health and cause materials to deteriorate. Items such as stoves, clothes dryers and showers should all be well vented to the outside of the house.

Long periods of stagnant, moist conditions in your house will encourage mould. Chloride-based cleaners will scrub most of it off, followed by an application of fungicidal paint for future protection.

## JAMMING WINDOWS AND DOORS

If windows and doors persistently jam, your footings may be defective, your stumps may have rotted or your piers may have moved. Jamming is prevalent in older homes where structural subsidence is common.

Regular sub-floor examination will help keep an eye on the situation. Check sub-floor drainage first as very wet soil can contribute to subsidence. Reblocking, re-stumping or soil stabilisation, even underpinning, may be required to rectify the subsidence and halt further damage.

## MAINTAINING SERVICES IN OLDER HOMES

Have gas leaks fixed immediately. Check the colour of your cook tops gas flame for signs of contamination and danger – natural gas should burn blue. If in doubt get your appliance or supply line checked by qualified serviceperson.

Fuses that blow with increasing regularity indicate a wiring problem and should be attended to immediately. Where possible, replace fuse boards with circuit breaker boards. Blowing fuses may indicate a wiring system coming to the end of its working life. Blown fuses may also occur after the replacement of light fittings, or after recent renovations and extensions, because older wiring can disintegrate when touched and older systems may not have sufficient capacity for additional outlets, light fittings and appliances. Do not attempt any re-wiring work yourself, always contact a licensed electrician.

Cold water systems in older homes can deteriorate very rapidly. If cold water pressure drops significantly, it is worthwhile having a plumber replace the main supply pipe.

Hot water units have a limited life and can fail without warning. External units deteriorate more rapidly with exposure to the elements and may require replacement every 7 – 10 years. Temperature control valves may require replacement at even shorter intervals depending on the manufacturer's recommendations.

## MAINTAINING FLOORS – TIMBER OR CONCRETE

Timber floors may squeak particularly during dry conditions. You can easily pack plastic shims, cement sheet pieces or wedges of wood between bearers and joists. This is generally not a structural problem - the timbers are simply warping or shrinking as they dry.

From about 1990 onwards, many “volume built” houses and townhouses have been constructed on “waffle pod slab” systems – and these are prone to movement – sometimes excessive. As a preventative, care should be taken to moderate uneven moisture around the building. Where these slab systems are constructed on cut & fill sites, watch out for uneven settlement and slab distress if compaction of the fill has not been adequate. Seek expert architect advice if you are not sure of your circumstances.

## MAINTAINING TILED WET AREAS

Bathrooms, laundries and kitchen sinks are naturally wet areas. Current building codes require an impervious finish to all surfaces that are exposed to water, from shower bases and walls, bath surrounds and basin or sink splashbacks. Ceramic tiles fulfill this function well as long as certain features are maintained. Ensure adequate waterproof seals around shower screens, fixtures and shower bases. Check for cracked or drummy tiles and loose or missing grout in showers, bath surrounds and splashbacks: water penetrating behind tiles will encourage the development of timber rot to the wall framing or timber pest infestation. Water resistant particleboard base flooring can deteriorate rapidly with serious loss of structural stability under prolonged exposure to water. Repair all leaks quickly to avoid further deterioration. Defer to

compressed cement sheet for base flooring in wet areas.

## **MAINTAINING THE SUB-FLOOR**

It is important to remove debris from the sub-floor to help with ventilation which is vital in controlling sub-floor dampness. Damp sub-floors often make the house smell musty and mouldy. Black mould may appear on walls, and sometimes white "beards" of mould may appear under the house. Stumps, bearers and joists will rot much faster when subjected to mould and damp conditions. Damp sub-floor conditions can also attract destructive timber pests.

Whilst not that prevalent in the 21st. Century, older homes which contain timber stumps as part of their sub-floor structure will eventually be subject to stump rot. Stumps deteriorate first just below ground level, and the best way to extend their life is to keep

the ground dry. Even better is to replace them fully with concrete stumps.

Also examine the sub-floor for signs of termites. This can be tricky. They build mud tunnels under concrete slabs, over stumps and base walls to get to the house. The first line of defence for both termites and borers is to keep the sub-floor as dry and as well ventilated as possible and remove any loose timber off-cuts or builder's waste, as this provides tasty fodder for hungry termites. One sign of borer damage is the gritty dust residue they leave behind. If you find or suspect a termite infestation, contact a pest controller without delay. Do not attempt to remove or disturb the nest or mud-tubes yourself as this will disperse the colony and make control even more difficult.

**If you would like to talk to an Archicentre Australia architect about a particular matter please call us on 1300 13 45 13 or go to [www.archicentreaustralia.com.au](http://www.archicentreaustralia.com.au)**