



# Spontaneous ceiling collapse

***The following is a guide for home owners who may have concerns about the stability of the plasterboard ceilings within their home.***

Building and Energy has become aware of a number of ceiling collapses, particularly in homes completed between the years 2005 and 2009. Ceiling collapse can cause damage to the contents of the room, and cause serious injury. There are generally warning signs that a ceiling is under stress or failing and it is at this time owners need to be proactive and arrange inspection and repair of the affected areas.

A number of home inspections have revealed that residents noticed warning signs of the ceiling being under stress prior to the collapse. Unfortunately, these warning signs were not understood by the residents and remedial work that could have prevented the collapse was not carried out.

## **What are the warning signs?**

Warning signs of the ceiling being under stress prior to collapse include:

- a loud cracking sound in your ceiling;
- a sagging or dropping of the plasterboard sheeting and/or the cornice; and/or
- visual cracking and/or small circles (nail pops) on your ceiling. If you can see small circles or blisters (about the size of a shirt button) scattered along a straight line it is a sign that your plasterboard sheeting is pulling away from the ceiling joists.

## **What checks can I do?**

If you have concerns about the stability of your plasterboard ceiling, there are checks you can do:

- Measure the height of your ceiling where it meets the wall and then measure the ceiling height in the middle of the room. A variation in heights of 12 mm or more could indicate the plasterboard sheeting has detached from the ceiling joists.
- Place a straightedge or spirit level over an area of ceiling sheeting and see if there unevenness anywhere in your ceiling.

- Check to see if there is a gap between the ceiling sheeting and the joists. This can only be done by accessing the ceiling space. Accessing your ceiling space presents numerous hazards and it is strongly recommended that you engage a suitably qualified person to carry out this activity. Should you choose to enter your ceiling space make sure all power is isolated before doing so.



Use a spirit level to check the flatness of ceiling sheeting.

## **What should you do if you find a warning sign?**

Should you note any of the warning signs listed above you can contact the builder as ceilings should be constructed to last the life of the building. If you are unsure who the builder of your home is you can contact your local government who can provide this information. You can access Building and Energy's building contractor register to ensure the builder is registered, at [www.commerce.wa.gov.au/building-and-energy/find-registered-builder](http://www.commerce.wa.gov.au/building-and-energy/find-registered-builder)

If you do not get a satisfactory response from the builder, you should consider engaging the services of a qualified building inspector (this could be a builder, building surveyor, architect or some other suitably qualified individual) in order to identify the nature or extent of any problems.

If an inspection identifies issues of concern, you should put this in writing to the builder outlining what the problem is and giving a reasonable amount of time for the builder to respond or to fix the issue.

If after writing to the builder you still cannot resolve the issue and you have evidence to show the ceiling is faulty you can lodge a complaint with Building and Energy if your home is less than six years old. Information on Building and Energy's disputes process can be found at [www.commerce.wa.gov.au/building-and-energy/building-service-and-home-building-work-contract-complaints](http://www.commerce.wa.gov.au/building-and-energy/building-service-and-home-building-work-contract-complaints)

For homes built more than six years ago, information about civil claims can be found on the relevant court websites. Prior to pursuing any action, it is advisable that consumers seek their own independent legal advice.

Home owners who believe their ceiling is vulnerable to collapse should take immediate steps to secure the ceiling. It is recommended home owners contact a suitably competent ceiling fixer who can brace the ceiling and refix the sheeting where the fastening systems have failed.

## Care of your ceiling

Ceilings are designed to hold only the weight of the ceiling framing, the ceiling sheeting, ceiling insulation and light weight light fittings. If you intend to store household items in your roof space additional supporting framework will be required.

Moisture entering the roof space can cause damage to the plasterboard sheeting, resulting in sagging of the sheeting and/or failure at the fixing locations. If you have a leak into the roof space you may need to remove affected insulation (replace once dried) and moisture damaged plasterboard sheeting.

Home owners should check that all exhaust fans ducted to the outside air are not discharging into the ceiling space.

Air conditioning ducts require regular checking to ensure conditioned air is not leaking into the ceiling space from tears in the flexible ducting or loose connections.

Great care needs to be taken when working in a roof space so that no damage is caused to the ceiling sheeting. It can be very difficult for workers carrying heavy equipment such as air conditioning components over a ceiling and any substantial movement of the ceiling framing or sheeting can result in screw pops and loss of adhesion of the fasteners.

## Note

This guide relates to internal residential ceilings constructed using gypsum plasterboard and not external ceilings or ceilings constructed from different sheeting materials. External ceilings including garage ceilings are required to be constructed differently to internal ceilings as they are subject to different environmental conditions depending upon the building's location.

**Disclaimer** – The information contained in this fact sheet is provided as general information and a guide only. It should not be relied upon as legal advice or as an accurate statement of the relevant legislation provisions. If you are uncertain as to your legal obligations, you should obtain independent legal advice.

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