



Deck and balcony safety

A practical maintenance and safety guide for your home



Fair
Trading

Acknowledgements

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Disclaimer

This publication is a plain language guide to the topic. The images used in this publication may not comply with Australian laws, codes and standards. This guide must not be relied on as design, building or legal advice. For more information please refer to the appropriate legislation, codes and standards or seek professional expert advice related to building or independent legal advice.

The terms 'balcony', 'deck' and 'verandah' are used interchangeably in this guide.

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Deck and balcony safety

Outdoor living and entertaining around the home is a popular part of life in NSW. Our weather and lifestyle are ideal for enjoying the outdoors at home while relaxing and entertaining with friends and family.

Many Australian homes have decks, balconies, verandahs or other outdoor areas included in the original design and construction or as part of renovations and additions.

Unfortunately, there have been a number of recent incidents in NSW and other States involving balconies and decks that resulted in injury and death.

New balconies, decks, balustrades and railings must be built to meet the requirements of the Building Code of Australia and relevant Australian Standards. The Building Code requires the structure and materials used to build a balcony or deck to withstand the loads and stresses that would be reasonably expected to be placed on it. Older buildings should have been

built to the relevant codes and standards in force at the time they were built.

Decks and balconies, like all parts of our homes and other buildings, require routine and regular maintenance to keep them in good repair and to identify any emerging issues.

Being extra safety conscious with decks and balconies is important as they are often above ground level which increases the risks of serious injuries from accidents.

This Guide is designed to help you:

- understand what to do to build and maintain safe decks and balconies
- identify any signs of required maintenance or structural problems, and
- understand what expert assistance is available, if needed.

A reference in this guide to a deck or a balcony includes: decks, balconies, verandahs, patios, terraces or other similar structures.



Example of a collapsed deck.



Example of a collapsed deck.

What can affect the safety of a deck or balcony?

Most decks and balconies will be built from timber, steel or concrete – or a combination of these materials. Here is a list of things that over time can have an effect on the safety of the structure.

Insects	Timber can be affected by termites or borers. Attacks by these insects can weaken and destroy the timber and can go undetected for extended periods, especially without regular inspection and treatment.
Water and rot	Timber is affected by water and exposure to the elements. Wet rot can occur when timber is in constant contact with the ground or other timbers where there is moisture. All timber needs treatment and protection to withstand exposure to the effects of weather and other sources of water.
Coastal and corrosive effects	Corrosive environments, particularly on the coast, can affect steel structures and components, steel reinforcements and fixings such as bolts and fixing plates.
Heavy Loads	Large pots, spas, water features, furniture, barbeques, air conditioners other equipment, and even people, can place added loads on a deck or balcony. Allowance for these loads may not have been included in the deck's original design.

How do I keep my deck safe?

All parts of our homes, and other buildings, require routine and regular maintenance to keep them in good repair. Decks and balconies must be inspected to identify needed maintenance or repairs.

There are some simple steps you can follow:

1. Make sure that any building, renovation or addition has the required planning and building approvals. Check with your local council if you don't have copies of these documents.
2. Only engage licensed tradespeople to do building work and make sure you check their licence with NSW Fair Trading before signing a contract or paying money.
3. Check your deck regularly for wear and tear or more serious deterioration. Have an inspection done by a professional if you are unsure what to look for or if you think there are any problems.

Before you entertain on a deck or balcony think about the reasonable number of people that the structure can support. The deck may not have been designed to accommodate larger groups of people and dynamic activities, such as dancing, which can impose a significant additional load.

What should I look for?

At least once a year you should do a thorough visual inspection of your deck or balcony.

You should look out for:

- pooling of water on the deck or balcony surface, which may indicate poor drainage, and can lead to water leaking into lower levels of the deck.
- loose handrails and balustrades that should be solid and fixed. Be aware of balustrades that are fixed to the balcony's or deck's top surface and not fixed directly to the main supporting structure.
- tops of solid balustrades and fixings at wall junctions which may be loose or not adequately fixed.
- cladding that finishes hard against the balcony or deck. It may contribute to wet rot.
- cladding or lining board that is fixed to the balcony or deck, which can prevent visual inspection of the supporting members and the connections of the structure.
- beams that span long distances without any supporting posts and columns.
- beams that are sagging, cracking or warping.

Timber structures

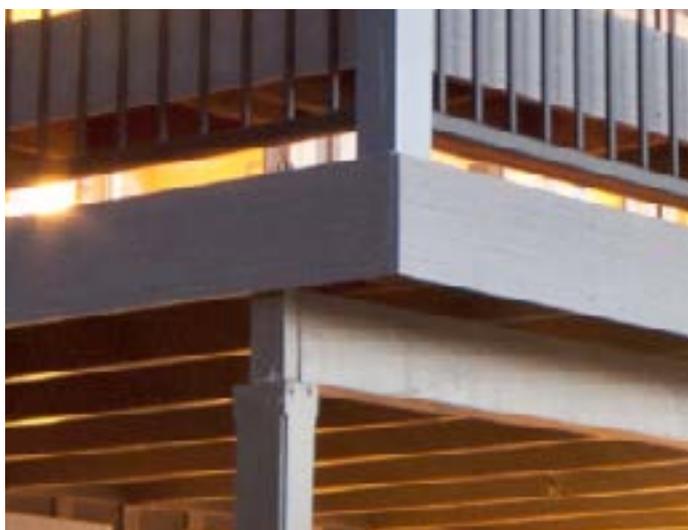
There are specific safety issues related to elevated timber decks. Treated timbers can resist deterioration for an extended period of time however they require maintenance and inspection. Timber is also susceptible to insect attack and requires inspection and treatment over time.

Dry rot and wet rot are particular dangers for timber decks. A properly applied stain or paint finish can restrict water entry through the timber faces. However, gaps, joints and exposed end-grains of timber provide an entry point for moisture, especially when exposed to coastal weather and atmosphere.

A well-maintained deck or balcony should last for years with routine maintenance. Observing and inspecting different elements of your deck are a key part of maintenance.

Make sure you look out for:

- changes in the structural members. Is the timber bending or warping?
- damp patches or discoloration. If so, test the timber by probing it with a sharp object like a screwdriver. Decayed timber may feel soft and spongy.



- unstable handrails and balustrades. Use a pushing and pulling action to make sure they are not rotted, corroded, or coming loose.
- movement in the main supporting beams and framework. The structure should be properly fixed to the building. Even if there are no signs of decay, check for movement by pushing or pulling the main supporting beams or joist.
- rot at the base of timber posts and the connection points of beams. Check that brackets and bolts are not loose or rusting. Water should not pool at the base of posts or wall supports.
- loose, weak or broken decking boards.
- deterioration underneath your deck. Check the connection points at the beams with a screwdriver or other sharp object to look for signs of deterioration. Timber is most susceptible to rotting where two pieces of timber join. Make sure brackets and bolts are not loose or rusting.
- bearers, joists and decking boards that are not adequately supported.
- the type of timber used. Different timbers need different treatment and maintenance and may be more or less durable when used in exposed external environments. Be certain about what type of timber was used in the construction of your deck or balcony. Make sure your maintenance routine is the right one for the timber used.
- unstable timber posts. These should be embedded in concrete footings using proprietary metal brackets or stirrups and have adequate protection from insect attack or rot. Look for signs of bending or stressing of the footing brackets.
- insecure steel posts which should be securely anchored to the foundation by being embedded into concrete footings.

All types of decks should be checked regularly. You should check the handrails, balustrades, supporting beams and joists of your deck by using a pushing and pulling action. Use light pressure before increasing the force applied.

Concrete and masonry structures

All exterior concrete balconies are susceptible to deterioration. Unlike timber structures, it may not be obvious. Cracking and flaking concrete and corrosion of the reinforcement are signs of decay. Small cracks in a concrete surface may look harmless but gaps and joints are a point of entry for moisture, especially in coastal areas.

A well-maintained concrete balcony should last for many years.

Make sure you:

- look for signs of deflection. If the balcony leans, there is a problem.
- examine the underside and edge of the balcony. Rust stains or exposed steel reinforcing are signs of a serious problem.
- check handrails and balustrades by using a pushing and pulling action to make sure they are not rotted, corroded, loose or unstable.
- look for the presence of spalling, often called 'concrete cancer', where chunks of concrete are flaking off or cracking. It may be a serious problem and needs to be professionally inspected.
- check for loose or broken floor tiles.
- inspect the drainage system regularly to make sure it isn't blocked.

What if there is a problem?

Play it safe. If there appears to be anything suspicious about the stability of a deck or balcony, avoid the area and close it off to restrict access.

It is recommended that you get the structure inspected by an expert. An expert can help to diagnose a problem and provide advice on what can be done to fix it.

If you need to undertake any building or rectification works you should make sure you have the required plans and approvals to undertake the work.

Remember only use a licensed builder or tradesperson. You can do a free licence check by going to the Fair Trading [licence check](#) page or by calling 13 32 20.

Who are the experts?

A range of people have skills and experience to inspect balconies and provide advice on keeping and making them safe.

Relevant experts include:

- Licensed builders
- Building inspectors
- Structural engineers
- Architects
- Building Surveyors

Industry associations and professional organisations may also provide advice about appropriate experts. If you engage an expert to conduct inspections or provide advice, check they have:

- the relevant licence or registration
- the right skills and qualifications
- specific experience, and
- insurance that covers the professional risks of the advice they provide.

What if I'm thinking of buying a home with a deck or balcony?

If you are buying a home with a deck or balcony you may already be considering getting a building inspection. Make sure:

- the inspection specifically includes the deck or balcony.
- any building, renovation or addition has been done with the required planning and building approvals. Check with your local council for copies of plans and approvals.
- the building you are interested in matches the approved plans.

If you buy a home with unapproved building works such as an unapproved deck and something goes wrong you could be liable for damages.

For more information about [buying a home](#) go to the Fair Trading website or watch our YouTube video - [Do your homework when buying or building a home](#).



What if I rent a home with a deck or balcony?

Under NSW tenancy laws, landlords must provide and maintain rented premises in a reasonable state of repair.

At the beginning of a tenancy, one of the documents a landlord must give you is a **'condition report'**. Any faults or damage, including to decks or balconies, should be noted on the condition report that must be completed and signed by both parties.

If the landlord or agent promises to repair the rented property make sure you get it in writing (before you sign the lease) and ensure the repairs have been completed before you move in.

If something in the premises breaks or needs fixing during your tenancy you should contact the landlord or agent as soon as possible. The law distinguishes between urgent emergency repairs and those which are not so urgent. If urgent repairs are needed you should notify the landlord or agent right away.

Go to the **'Getting repairs done'** page on the Fair Trading website for more information.



What if I want a deck to be built on my home?

If you wish to make any changes to your home requiring building work check with your local council about approvals required before contracts are signed and any work is done.

You will also need to have plans prepared for approval before getting quotes and entering into a contract.

Only engage licensed tradespeople to do building work. Make sure you check their licence with Fair Trading before signing a contract or paying any money.



New balconies, decks, balustrades and railings must be built to meet the requirements of the Building Code of Australia and relevant Australian Standards. The Building Code requires that the structure and materials used to build a balcony or deck withstand the reasonable uses and stresses that would be placed on the structure.

When designing a deck or balcony you should consider how the deck will be used. For example, if you intend on placing a spa or other equipment on the balcony, or if you are planning on entertaining a large number of guests, the deck should be appropriately designed for these loads.

Deck and balcony maintenance checklist

Use this simple checklist as a quick guide to help you inspect and maintain your deck or balcony.

- Be safe. If there appears to be anything suspicious about the stability of a deck or balcony, avoid the area, and get the structure inspected by an expert. An expert can help to diagnose a problem and provide advice on fixing the problem.

All decks and balconies:

- Check that the structure is properly fixed to the main building. Use a pushing and pulling action on the main supporting beams or joist to check for signs of movement.
- Think about the number of people and objects on a deck or balcony. Large loads placed on a deck regularly or on special occasions may exceed the load that the deck or balcony was designed to hold.
- Think about the safety of children and visitors. Do not let people climb on the balustrades or handrails of decks. They may not be designed to withstand that load and may lead to falls from elevated heights, resulting in serious injury or death.

Stairs, handrails and balustrades:

- Check for signs of rot, corrosion, looseness or instability.
- Stairs, handrails and balustrades should be securely fastened at all points. Pay particular attention to balustrades that are fixed to the balcony's top surface and not fixed directly to the main supporting structure.
- Look for signs of sagging or loss of tightness where wire balustrading has been used.

Timber balconies and decks:

- Check the timber for signs of decay, rot or insect attack. For example, is the timber spongy when probed with a sharp object?
- Look for signs of bending, warping, sagging and splitting. Pay close attention to beams that span long distances without any supporting posts and columns.
- Check to see if the timber needs a reapplication of stains, oils or paints, remembering different timbers may need different treatment.
- Check bearers and joists are adequately supported.
- Check all connections for signs of deterioration, such as beam to post connections, and for any loose or rusting fixings.
- Check for loose decking boards or flooring.

Concrete balconies and decks:

- Look out for signs of deflection or leaning.
- Check for the presence of spalling, where chunks of concrete flake off or crack.
- Examine the underside and edge of the balcony for rust stains or exposed steel reinforcing.

Glossary

Balustrade

A protective barrier to prevent accidental falls is usually comprised of handrails, infill and posts that support it. A balustrade may be made from many materials including timber, metal, glass etc.

Bearer

A beam supported by a wall, piers or posts that in turn supports joists or other framing.

Cladding

A covering of a frame that provides protection from the weather and is usually not load-bearing.

Joist

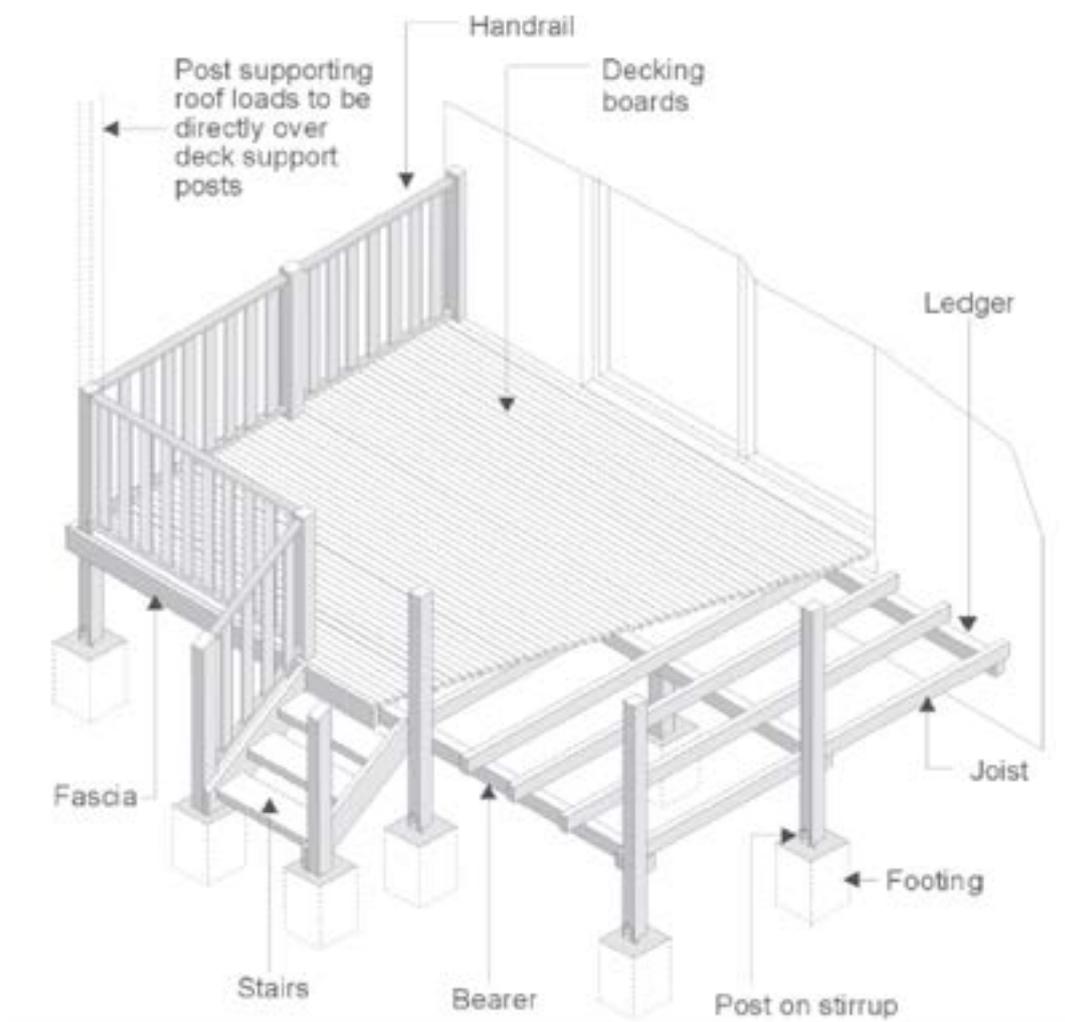
A horizontal framing member that is supported on or by bearers, ledgers or other structural members that in turn supports floor or ceiling linings such as decking boards.

Ledger

A member that is attached to a house frame. It is designed to support a deck and transfers the weight of the deck to the house foundation.

Member

A structural component, such as a beam or column, or part of an assembled structural component.





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