

Playground Safety

Playgrounds

Playgrounds offer children of all ages opportunities to play – to try new things and learn about themselves, other children and the outside environment.

However Injury Surveillance data from Hospital Emergency Departments show:

- An average 10,000 injury related ED presentations each year
- Approximately 42% of injury presentations are fall-related.
- Approximately 13% of fall-related injuries occur in playgrounds.
- Falls from equipment are the most common cause of injury.
- Common injuries include fractures, spinal injuries and head injuries.

The higher the fall, the more likely it is that an injury will be severe, particularly if the surface beneath and around the equipment is hard or has no impact absorbing properties.

Injuries in the playground can be attributed to both child behaviour and equipment factors.

Child related factors include:

- Use of equipment not suited to the age or stage of development of the child
- Lack of appropriate adult supervision
- Inappropriate use of equipment, e.g. sitting on top of monkey bars.
- Over-crowded play areas.



Equipment related factors include:

- Poor design or layout of equipment
- Lack of maintenance
- Trip hazards, things that protrude or tangle
- Pinch points and sharp edges.

How to stay active and safe

Safety suggestions for using playgrounds:

- Always supervise your child appropriately for their age and the play equipment being used.
- Help your child to be aware of other children playing, particularly near swings or other moving pieces of equipment.
- Ensure your child is not wearing clothing or hats with cords attached that could cause entrapment or strangulation if caught in equipment.
- Guide your child to use equipment safely and sensibly.
- Protect your child from the sun with appropriate clothes, a cap and sunscreen.



The Australian Standards for playgrounds should be consulted by anyone planning, designing, building or maintaining a playground.



1. **AS 4685:** Sets out the general and specific safety requirements for playground equipment
 - i. AS 4685.1 General safety requirements & test methods
 - ii. AS 4685.2 - Swings
 - iii. AS 4685.3 - Slides
 - iv. AS 4685.4 - Runways
 - v. AS 4685.5 - Carousels
 - vi. AS 4685.6 - Rocking Equipment
 - vii. AS 4685 - Particular safety requirements and test methods for spacial networks
2. **AS 4422:** Playground Surfacing. Specifications, Requirements & Test Methods

Design and Layout

Siting and layout

- Site playgrounds so that children can access and use them safely and easily.
- Avoid sites near to environmental hazards (such as fast-flowing rivers, heavy traffic)
- Have good visibility to ensure children's social safety and reduce vandalism.
- Encourage adult supervision with ample seating and pleasant surroundings.
- Consider the play needs of intended age groups and children with disabilities.
- Provide toilets and drink fountains safely nearby.
- Have space large enough for a variety of play activities.
- Provide shade from mature trees or a shade structure such as sails.
- Provide separate play areas for different age groups.



Playground under-surfacing

As most playground injuries are a result of falls, impact absorbing under-surfacing is required in the fall zone for all play equipment with a free height of fall greater than 500mm.

The **free height of fall** is the distance a child can fall from a playground item, that is, the distance between the top of the slide and the surface below; or between any climbable item and the surface below.

The **fall zone** is the area under and around play equipment, where a child could fall.

The fall zone area varies depending on the specific equipment and the setting in which the equipment is used e.g. supervised early childhood settings or public settings.

Impact absorbing surfaces reduce the number and severity of playground injuries

For further information on individual requirements speak to your equipment manufacturer or visit the Playground Safety section on www.kidsafewa.com.au

What can be used?

Solid materials – Impact absorbing materials such as flexible rubber or wet pour substances are low maintenance but can be costly. Ask your supplier for a letter of warranty.

**Before purchasing impact absorbing under-surfacing: Ask the manufacturer for information on the 'critical fall height' test results. Request a Certificate of Compliance to ensure that the material supplied has been tested in accordance with the Australian Standard 4422. Retain this certificate of confirmation in your playground records.*

Loose fill – Organic materials such as sand, pine bark or pine mulch to a depth of 300mm allowing for displacement. Loose fill materials need to be retained and require on-going maintenance.

Borders – A durable retaining border is required for loose fill material. Borders must not have splinters or sharp or abrasive edges or create a trip hazard; and meet the safe fall zone measurements.

Maintenance – Loose fill will move and compact and must be raked and redistributed weekly and replenished 4 times per year to maintain the impact absorbing qualities.

Maintenance of Playgrounds

Regular inspection and maintenance is required to ensure that equipment is not faulty and does not cause injury.

Maintenance includes:

- Raking your loose-fill regularly and replenishing loose fill impact absorbing materials
- Regularly check under-surfacing to ensure it is clean and there are no embedded foreign objects, e.g. broken toys, needles
- Checking equipment for wear and tear, cracks, loose parts or protruding bolts
- Looking after gardens and mowing lawns
- Unblocking drains
- Sweeping hard surfaces.

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