

Playground Safety

Injury Surveillance data from the Princess Margaret Hospital Emergency Department shows:

- 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 drop, the more likely it is that an injury will be severe, particularly if the ground beneath the equipment is hard or has no impact absorbing properties.

Both child behaviour and equipment are contributing factors to injury in the playground.

Child related factors include:

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



Equipment related factors include:

- Poor design and layout
- Incorrect installation
- 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
- Teach your child to be aware of other children playing, particularly near swings or other moving pieces of equipment
- Teach your child to use equipment safely and sensibly
- Ensure your child is not wearing clothing or hats with cords attached that could cause entrapment or strangulation if caught in equipment.
- 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: 2004 (Parts 1 to 6)** Sets out the general and specific safety requirements for playground equipment in six parts:
 - i. AS 4685.1 General safety requirements & test methods
 - ii. AS 4685.2 Particular safety requirements & test methods for Swings
 - iii. AS 4685.3 Particular safety requirements & test methods for Slides
 - iv. AS 4685.4 Particular safety requirements & test methods for Runways
 - v. AS 4685.5 Particular safety requirements & test methods for Carousels
 - vi. AS 4685.6 Particular safety requirements & test methods for Rocking Equipment
2. **AS 2155: 1982** Playgrounds: Guide to siting and to installation and maintenance of equipment
3. **AS/NZS 4486.1:1997** Playgrounds and Playground Equipment. Part 1: Development, Installation, Inspection, Maintenance and Operation
4. **AS/NZS 4422: 1996** Playground Surfacing. Specifications, Requirements & Test Methods

For more detail on any of these requirements download the individual fact sheets from the Playground Section on the Kidsafe WA website: www.kidsafewa.com.au

Design and Layout

Siting and layout

- Site playgrounds so that children can reach and use them safely and easily.
- No environmental hazards affecting the site (such as fast-flowing rivers, heavy traffic)
- Good visibility to ensure children's social safety and reduce vandalism.
- Allow for ease of supervision
- Access to the site
- Consider intended age groups and children with disabilities
- Area large enough for variety of play areas
- Shade - mature trees or a shade covering e.g. Sails or shade cloth
- Separate play areas for different age groups



Maintenance of Playgrounds

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

Maintenance includes:

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

What is a fall zone?

A fall zone is the area under and around play equipment. It needs to be of a suitable impact absorbing material. Impact absorbing material is required under all play equipment with a free height of fall greater than 500mm.

The fall zone area varies depending on the specific equipment eg. Swings; and the setting in which the equipment is used eg. early childhood settings or public settings.

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

Under-surfacing - Why is it needed?

An impact-absorbing surface reduces the number and severity of playground injuries.

**Before purchasing impact attenuating material: 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/New Zealand Standard 4422:1996. Retain this certificate of confirmation in your playground records.*

What can be used?

Loose fill - organic materials such as sand, pine bark or pine mulch to a depth of 30cm allowing for displacement. Loose fill materials need to be raked regularly to avoid compaction.

Solid materials - Shock absorbing materials such as flexible rubber, soft fall foam made into sheets, tiles, mats or wet pour substances. These are low maintenance but costly. A warranty letter should be obtained.

Borders - A retaining border is required for loose fills, high enough at a depth 300mm, durable, does not create another hazard such as splinters, sharp edges, it should meet the safe fall zone measurements.

Maintenance - Loose fill will compact and requires regular maintenance. According to the Standard, material must be raked and redistributed weekly and replenished 4 times per year.

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For more information ☎ (08) 9340 8509

Child Safety Information Line ☎ 1800 802 244

Poisons Information Centre ☎ 13 11 26

www.kidsafewa.com.au