



Commercial Trampoline Safety Guide

A comprehensive guide for schools
and commercial organisations
considering installing a trampoline.

An introduction to trampoline safety

Play is an essential part of every child's life. It provides the mechanism for children to explore the world around them and the medium through which skills are developed and practiced.

Risk taking & challenge

Risk taking and challenge have an especially important role in children's play and development.

Well designed & supervised

Well designed, supervised and maintained playgrounds and play equipment, such as trampolines, provide an additional stimulus for children and gives them an opportunity to improve their motor skills and test their physical abilities in a controlled and supervised environment.

You'll need to consider

- 1 Ensure your play area is designed and constructed by a professional contractor/designer with relevant experience.
- 2 Ensure that trampoline is designed and installed to the appropriate safety standard.
- 3 Ensure that when the trampoline is installed, appropriate certification and documentation is obtained.
- 4 Ensure that risks associated with the trampoline is assessed and that control measures are adopted.
- 5 Ensure that there is appropriate levels of supervision during play periods.
- 6 Ensure that your trampoline is regularly inspected and maintained.



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Equipment selection

You will need to think about the size and shape of trampoline you want. Then you should think about the specification of the trampoline - it should be fit for purpose.

Ask yourself

 How many children will be using the trampoline?

 How often will they use it?

 What age are they?

 Supervision available?

 Will the trampoline be sited indoors or outdoors?

 In-ground or above-ground?

 How heavy are they?

 Used for Rebound Therapy?



Trampoline standards in the EU

British Safety Standards

There is a British Standard (European Norm) that pertains to domestic trampolines, EN71-14, but as yet there is no safety standard for commercial or schools trampolines. That said, there is a more general Playground Equipment Standard EN1176. Many commercial trampoline manufacturers do test their trampolines to the relevant parts of EN1176. There is also a Gymnastics Equipment Safety Standard which many gym trampolines will conform to, these are EN13219 and EN913.

The European Standards are not retrospective or a legal requirement but they represent good practice.



Safety surfacing

In-ground trampolines that do not require a safety net will always need a suitable safety surfacing around it. Impact absorbent surfacing (safety surfacing) can be provided in a variety of materials, such as bonded mulch, rubber tiles or artificial grass with shock pad underneath.

Critical fall heights

Where used, the depth of material must comply with the regulations relating to the critical fall height, and this must be considered in relation to the maximum height of the equipment. See BS EN 1177: Impact Absorbing Playground Surfacing.

What about In-ground Trampolines?

First you must understand what the critical fall height of your trampoline is. This can be obtained from the manufacturer.

This will then determine which safety surfacing (and depth) you need to install.

Although impact absorbing surfaces cannot prevent accidents they may reduce the level of injury.



Installation documentaton

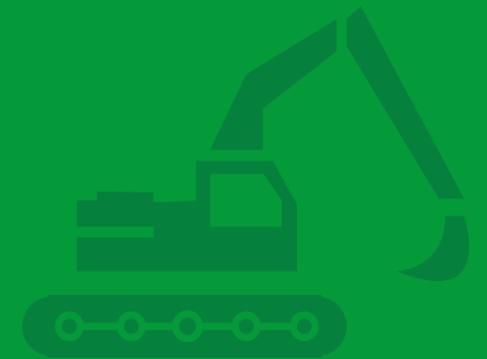
Trampoline manufacturers/suppliers should submit documentary evidence of compliance with BS EN 1176: Playground Equipment Safety or EN13219 or En913.

Checklist

Where equipment is unable to meet a standard, an explanation of acceptability or evidence of third party testing by a recognised body or a risk assessment should be provided.

The installer should provide written confirmation that the trampoline has been installed to the manufacturer's instructions and to the relevant standard where appropriate.

Where considered necessary, a post-installation inspection should be carried out by RoSPA or other appropriate body.



“All installations undertaken by Playgrade Trampolines will receive an Installation Certificate of Safety”



Risk Assessment

The design, installation, use and maintenance of playgrounds and equipment should be subject to a risk assessment by the school. This should identify hazards and the necessary measures necessary to control risk to a reasonably practicable level.

Typical hazards could be:

- Slips, trips and falls associated with equipment use
- Use of equipment by children with special needs
- Damaged or faulty equipment and safety surfacing
- Inadequate or poor levels of supervision
- Inclement weather
- Older equipment/use of second-hand equipment
- Poor maintenance and inspection regimes
- Use of equipment by inappropriate age groups
- Use of equipment by large numbers of children
- Children wearing inappropriate clothing

All installations undertaken by Playgrade Trampolines will receive full risk assessment as part of our service.

Plan out risk

Cluttered play areas cause supervisory and accident problems for schools and the installation of any ancillary equipment should be an integral part of an overall plan.

Other playground equipment

Other playground equipment and ancillary items near your trampoline, such as gates, fences, litter bins and seating if provided should be constructed and installed to apply to the requirements of BS EN 1176.



Supervision and safety

The safe usage of equipment provided for the physical development of children relies on adequate arrangements for supervision and control being established and followed within the school.

We recommend:

As approximately 75% of injuries occur when more than one person is on the trampoline, use should be restricted to a single user.

Children under 6 are particularly vulnerable and it is recommended that a minimum age of at least 6 is placed on use of trampolines.

Supervision by staff is no guarantee of safety and in around half of accidents the child is being supervised by staff. Spotters however greatly reduce this risk. Where practical experienced “spotters” should be present whilst trampolines are in use. These spotters should receive appropriate training.

The area around the trampoline should be clear of dangerous objects and the trampoline should not be near fences, trees, or other playground equipment.

Use a frame pad that fully covers the entire spring system and ensure that this is securely fixed against movement.

Users should be required to remove all jewellery items (including ear studs etc). Clothing should not have any hard or sharp points (e.g. buckles, toggles) or anything that is going to catch. Users should not wear hard shoes.

Appropriate notices for safe use of the trampoline should be clearly displayed near the entrance to the trampoline. See Appendix 1.

All staff should be fully aware of the emergency procedures for trampolining incidents at the area.

You should never allow a child to exit the trampoline by bouncing off.

The facility should have at least one qualified first-aid provider present at all times.

The equipment should be inspected by a suitable person before every use and the area around the trampoline should be kept free of litter and other items at all times.

Smoking should not be allowed on, or near, the trampoline. Food and drink should also be kept well away from the area.

If outdoors, muddy footwear should be removed before entering the trampoline area.

Children should be encouraged to understand their limitations and not to try skills/moves beyond their ability or experience.

Damaged equipment should be taken out of use immediately and reported to the responsible safety manager.

It is recommended that users should not be allowed excessive time on the trampoline without a break. Untrained users do not have the muscle strength for long periods. 90 seconds is a recommended maximum time for usage without a break.

An appropriate accident book that meets the requirements of the Health and Safety Executive should be kept. It is recommended that the trampoline area should have its own accident book.

A fence with gated entrance points should be constructed around the trampoline so that access can be controlled.

There should be good access for emergency vehicles to the trampoline area.

It is recommended that all users learn the bouncing skills which are usually detailed in the trampoline installation guide.

The following should be checked before every use.

- a. Wear on the jump mat, any damaged or thinning areas.
- b. Loose stitching or damaged or breaks in webbing.
- c. Uneven or high tension on the jump mat.
- d. All springs should be in place and undamaged with any hooks facing downwards.
- e. Stretched or elongated springs should be replaced.
- f. Surround pads should be checked for damage and security of fixing.
- g. Impact attenuating surfaces should be checked for damage and cleanliness.
- h. Safety netting is in good condition.

Care and maintenance

BS EN 1176-1 requires that your trampoline should be inspected and maintained according to the manufacturer's instructions at a frequency not less than that stated by the manufacturer. We recommend inspections at the following intervals:

Daily visual inspection

by supervising staff prior to use should include looking for evidence of vandalism/damage to equipment or surfaces. The area around the trampoline should also be checked to ensure it is clear of glass, litter and other hazardous objects.

IMPORTANT: If any faults are found, the trampoline MUST NOT BE USED.

We advise that the trampoline is taken out of service until replacement parts are fitted.

Monthly inspection

of the trampoline itself using a checklist detailed, as follows.

Annual inspection.

This should be undertaken at intervals not exceeding 12 months. It should be carried out by an independent and competent specialist. It should be carried out in strict accordance with the manufacturer's instructions.



Care of your trampoline

- 1** Do not exceed the maximum user weight limit provided by the trampoline manufacturer. Excess weight and improper use will damage it and cause it to break easily.
- 2** Keep trampoline clean. If any part becomes dirty, clean with a damp cloth and dry thoroughly. Do not use any abrasive cleaners as this could damage the products.
- 3** If possible, store pads in dry place when not in use. Prolonged exposure to sun and harsh weather can shorten their life.
- 4** Keep trampoline in good condition by using a cover. Damage can be caused by water pooling, garden/outdoor debris landing on it, and sparks from nearby bonfires and fireworks displays.



Records

Inspection record sheets and records of work actioned as a result of them should be kept for the life of the equipment. They should include the date the work was carried out and the reasons for it.

Records of annual inspections by the play equipment inspector should be kept during the life of the equipment as they will be required if a claim is made following an accident.

Repairs & faults

Faults

Faults identified during the inspection should be rectified immediately if they are hazardous. If this is not possible then the trampoline should be taken out of use until such time as it has been made safe.

A trampoline beyond economic repair must be taken out of use immediately, appropriately signed and be removed from the site and safely disposed of as soon as possible. When it is necessary to remove equipment from the site the ground underneath must be made good afterwards.

When repairs are required

When repairs are required, always use the manufacturer's correct replacement parts or provide parts of equivalent or better quality. If the original manufacturer no longer exists, obtain advice on suitable replacement parts from a play equipment inspector.



Further information

Useful links:

The Children's Play Information Service: www.ncb.org.uk/cpis
Association of Play Industries <http://www.api-play.org>
Play England: www.playengland.org.uk
Royal Society for the Prevention of Accidents:
www.rospa.com/leisuresafety/adviceandinformation/playsafety/default.aspx

Legalisation:

Health and Safety at Work etc Act 1974
Occupiers Liability Acts 1957/1984
Disability Discrimination Act 1995
Management of Health and Safety at Work Regulations 1999

Play equipment standards:

BS EN 1176: Playground Equipment
BS EN 1177: Impact Absorbing Playground Surfacing
BS EN 15312: Free access multi-sports equipment. Disability Discrimination Act 1995
BS EN 13219 & EN193: Gymnastics Equipment Safety Standards



Appendix 1

Safety notice

Before you use this trampoline you must

Take your shoes off before jumping.

Remove glasses, jewellery and any other objects.

Ensure there is adult supervision.

Only allow one jumper at a time.

Do not sit on the trampoline frame pad or stand on the edge while others are jumping.

Always walk on and off the jump mat, do not jump off.

Climb carefully up and down the ladder and do not grasp the frame pad to pull yourself onto the trampoline.

Practice jumping and landing in the same spot – the sign of a good controlled jump.

Break your jump whenever you start to lose balance or control. This is done by simply flexing the knees sharply upon landing.

Do not attempt somersaults or other dangerous movements

Do not bring food or drink onto the trampoline.

Do not use the trampoline when under the influence of drugs or alcohol



Appendix 2

Monthly assessment

Part	Checklist	OK	Not OK
All Parts	Securely attached	<input type="radio"/>	<input type="radio"/>
	Correctly positioned	<input type="radio"/>	<input type="radio"/>
	No sharp edges or points present	<input type="radio"/>	<input type="radio"/>
Springs	No damaged springs (bent, broken or stretched)	<input type="radio"/>	<input type="radio"/>
	No missing springs	<input type="radio"/>	<input type="radio"/>
	Frame	No bent parts	<input type="radio"/>
No loose parts		<input type="radio"/>	<input type="radio"/>
No rusting or corrosion		<input type="radio"/>	<input type="radio"/>
No missing springs		<input type="radio"/>	<input type="radio"/>
Jump mat	No missing parts (e.g. D-rings)	<input type="radio"/>	<input type="radio"/>
	No damage (e.g. holes, rips, frays)	<input type="radio"/>	<input type="radio"/>
	No holes, rips or tears in the netting	<input type="radio"/>	<input type="radio"/>
Enclosure	Netting securely fastened to the enclosure poles and not sagging	<input type="radio"/>	<input type="radio"/>
	Protective pole foam padding in good condition	<input type="radio"/>	<input type="radio"/>
	No damage (e.g. holes, rips, frays)	<input type="radio"/>	<input type="radio"/>
	No holes, rips or tears in the netting	<input type="radio"/>	<input type="radio"/>

Appendix 3

Example risk assessment for a school

Activity	Hazard / danger	Severity High Medium Low	Likelihood Very Likely Fairly Likely Possible Unlikely Very Unlikely	Control measures	Risk assessment after Control measures High Medium Low	Review date
Jumping against netting	Equipment Damage/ Injury	Medium	Possible	Safety cage net secured firmly all around. Damage reported and equipment not used until fully repaired	Low	Jan 2019
Session undertaken in adverse weather conditions	Equipment Damage/ Injury/Fall	High	Very Unlikely	Sessions cancelled in adverse weather conditions (this is weather that is considered to cause harm to the group, either directly or indirectly-as a result of the weather causing safety equipment to fail. This could be gale force winds, very heavy rain or severe sleet/snow) Guidelines for adverse conditions form part of staff induction.		Jan 2019
Jumping and landing	Injury	Medium	Possible	Participants briefed by instructor before sessions on safe bouncing including bending their knees. Participants must not flip or take their feet past their head (as this increases risk of spinal injury. Adults must supervise participants under the age of 18. Participants must warm up before jumping.	Low	Jan 2019
More than one person using trampoline at once	Equipment failure	Medium	Possible	Only one person in enclosure at once.	Low	Jan 2019
Equipment failure	Injury	Medium	Unlikely	Monthly checks must be undertaken as well as checks before and after each use. Any faults found must be reported and use of trampolines should be stopped until they have been fixed. Participant weight restriction of 14 stone (manufacturer recommendations) is in place.	Low	Jan 2019
Entry and exit onto Trampoline	Injury/ Equipment Damage	Low	Unlikely	Activity must be supervised by an adult leader. Supervisory staff are inducted in safe use of the trampoline. Participants briefed by a supervisory staff member before sessions begins.	Low	Jan 2019

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