

# SAFE TO PLAY

THE ULTIMATE GUIDE TO THE SAFETY IN  
PLAYGROUNDS & RECREATIONAL SPORTS AREAS!



ESA JUNTILA

# 1. INTRODUCTION

Play and recreational sports areas provide more than just leisure opportunities. The majority of people live in urban areas where the natural opportunities for free play and sports are limited; public recreational locations offer all people the opportunity to spend time together in the open air. Playgrounds with exciting play features and challenges contribute to the development of children.

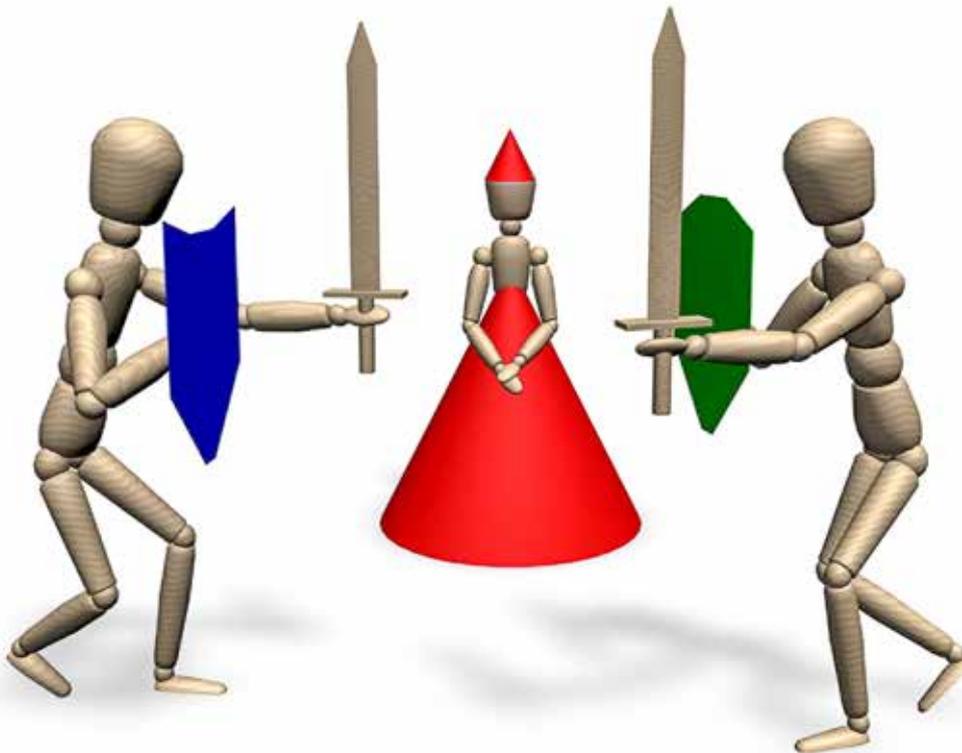
*Read more in chapter 1.1. Value of play and recreational sports areas.*

The criteria for the safety of playgrounds and recreational sports areas can be found in National laws, from local government, and National/European standards, supported by technical reports and official interpretations. Certification is part of a quality control process, especially for manufacturers and others operating at an international level.

*Read more in chapter 1.2. Background of the requirements.*

Everybody involved in the provision of recreational facilities should fully understand their responsibilities in order to perform their tasks competently and avoid undesirable consequences if problems should occur: sometimes organisations may have to answer for their actions, potentially in a court of law. However, the fear of liability should not lead to a situation where playgrounds and recreational sports areas are 'dumbed down', thus providing little meaningful challenge for the users.

*Read more in chapter 1.3. Responsibilities.*



217

"Knights fighting over the maiden"

# 2. SAFETY MANAGEMENT

Safety management of recreational areas is a process which involves undertaking safety related measures, such as maintenance and inspections, in a systematic and efficient way; this helps to ensure that the required level of safety is met and maintained.

*Read more in chapter 2.1. Maintenance and inspection plans.*

An organisation may have recreational areas that are in the process of being entirely or progressively renewed at any given time; if the area is not to be completely refurbished an action plan for the balance of the renewal should be developed. Safety issues should be considered at all stages of the project and as such the potential for serious problems being identified at the post installation inspection will be minimised.

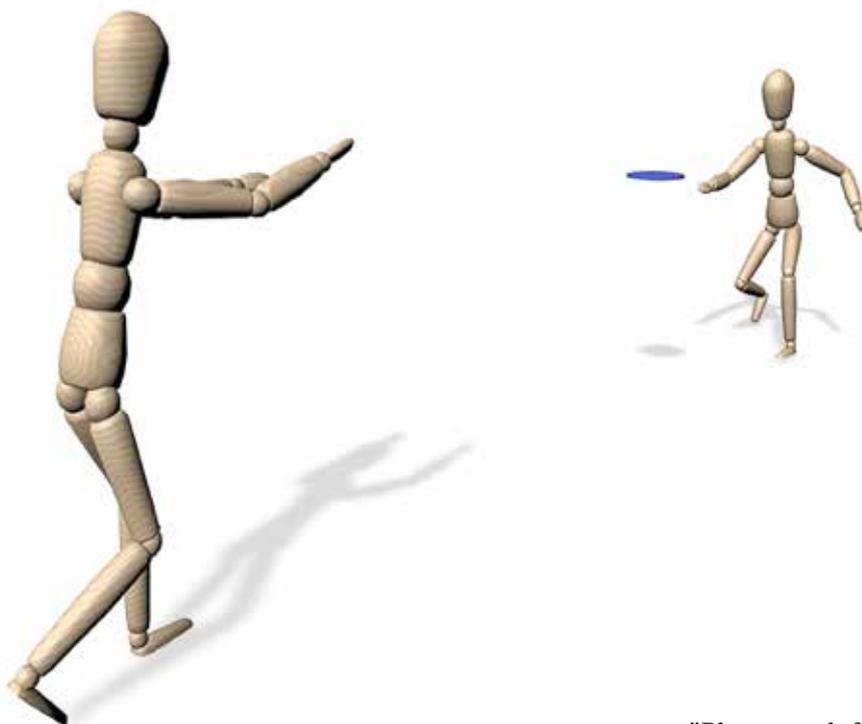
*Read more in chapter 2.2. Construction projects.*

It is often a good idea for the opening of the new area to be made into an event; this can have a positive impact on the area's utilisation rate and potentially reduce the amount of vandalism experienced later by engaging the community in the process.

*Read more in chapter 2.3. Opening of a new area.*

Just one playground can generate significant amounts of underlying documentation, therefore if an organisation owns several recreational areas it is recommended that the documents are archived systematically so that they are available when required.

*Read more in chapter 2.4. Documentation.*



o82

"Playing with frisbie"

# 3. TECHNICAL PRODUCTION

Inspectors carrying out operational and annual inspections must be familiar with the basic characteristics of the materials in order to assess the wear or the degradation of the structure, as well as to decide whether an item of equipment or a component can be left in use or if it should be replaced.

*Read more in chapter 3.1. Materials and connections.*

Structural integrity, stability and steadiness are the basic properties of equipment which determine its usability, safety and quality. Relevant calculations and tests are used to determine whether the equipment is sufficiently strong; these tests can be static or dynamic.

*Read more in chapter 3.2. Structural integrity.*

Impact attenuation is the main property of the safety areas. Generally speaking, the greater the height of the equipment, the softer the impact area required, however the material's ability to protect against injury is not always directly proportional to the critical fall height.

*Read more in chapter 3.3. Impact attenuation.*



o83

"Playing with horse's shoes"

# 4. SAFETY OF EQUIPMENT

General safety requirements are those which apply to all playground equipment; these requirements or their parts are also included in standards for recreational sports equipment.

*Read more in Chapter 4.1. General safety requirements.*

Some components and structures of playground equipment, such as roofs, stairs, chains, and foundations have their own safety requirements.

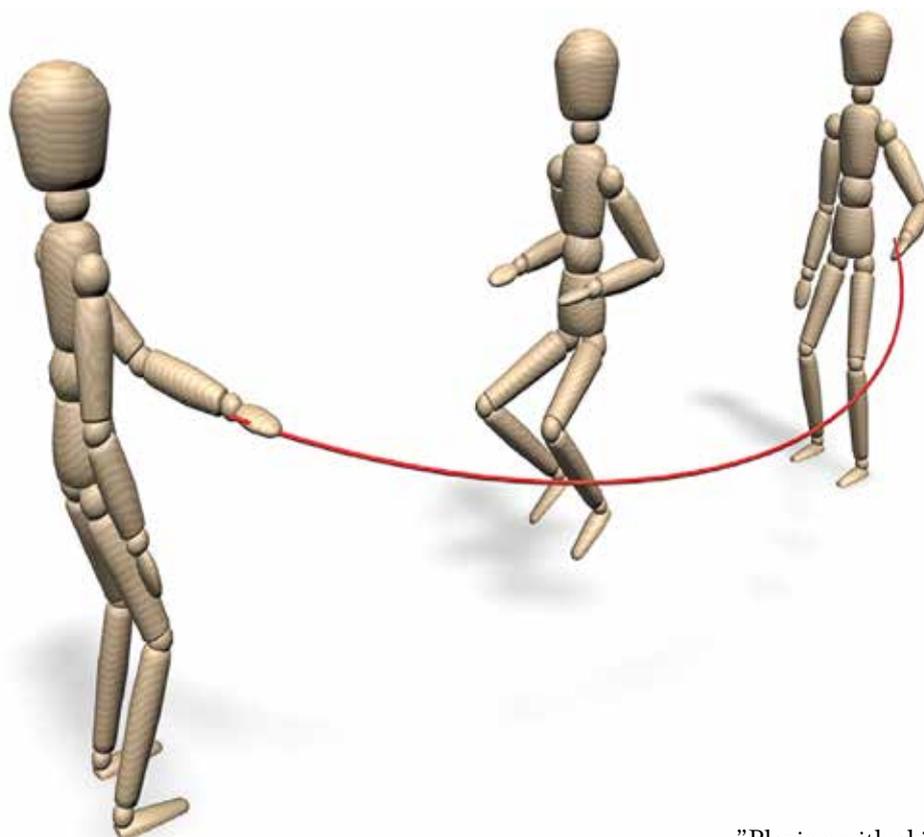
*Read more in section 4.2. Safety of components.*

Some types of equipment, such as swings and slides, have their own standards and specific requirements (or at least aspects) of risk assessment, e.g. balancing routes. This chapter provides a refreshing view of the new types of equipment which manufacturers create in their product development.

*Read more in chapter 4.3. Safety of playground equipment.*

Generally, the safety level of recreational sports equipment is lower than that of play equipment; safety requirements take into account the occasional use by children and the actual sporting use of the equipment. The standards provide design guidance allowing the equipment to be dimensionally compatible for the given sports.

*Read more in chapter 4.4. Safety of recreational sports equipment.*



085

"Playing with skipping rope"

# 5. SAFETY OF LAYOUTS

The consideration of age groups and capacity are the basic starting points of layout design; equipment manufacturers can provide the necessary information however due to the lack of official rules the information provided by different manufacturers are not necessarily compatible. The layout designer will therefore benefit from analysing equipment prior to its selection.

*Read more in chapter 5.1. Age class and capacity.*

Planning for and accepting an appropriate level of risk will reduce the risk of injury without making the area unchallenging or boring. The combination of different activities should be planned without jeopardising the safety of vulnerable users, such as younger or less competent children; a good plan will also take into account user accessibility and include measures designed to prevent vandalism.

*Read more in chapter 5.2. Different types of areas.*

One major constraint in the planning of an area is usually the space available. Safety areas are an important factor so the layout designer should be familiar with their requirements; some risk assessment can be carried out in order to maximise the use of the available space.

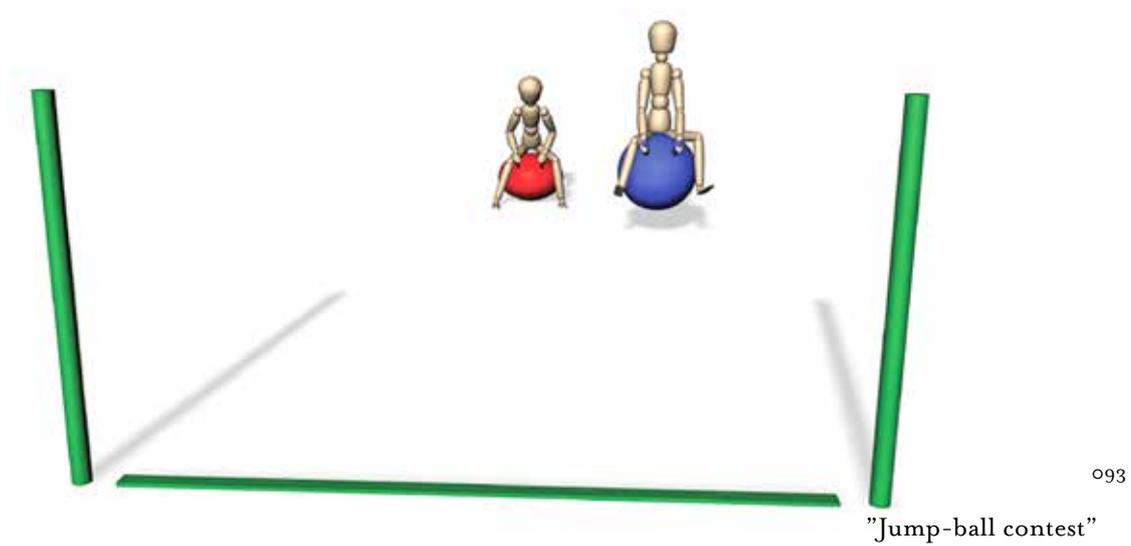
*Read more in chapter 5.3. Impact areas.*

Ancillary items are part of playgrounds and recreational sports areas; a lack of the necessary ancillary items could make the area less functional and may jeopardize its safety. Although there are no standards for ancillary equipment their level of risk must be deemed acceptable and appropriate for the target users.

*Read more in chapter 5.4. Ancillary items.*

Weather and other environmental conditions create challenges for planning; while these risks cannot be eliminated their impact on users can be minimised, or users can at least be warned of the hazards.

*Read more in chapter 5.5. Environmental conditions.*



# 6. INSPECTIONS AND MAINTENANCE

Inspectors must show professional conduct at all times and provide consistent advice. Competence is required in all areas in order to successfully complete an inspection.

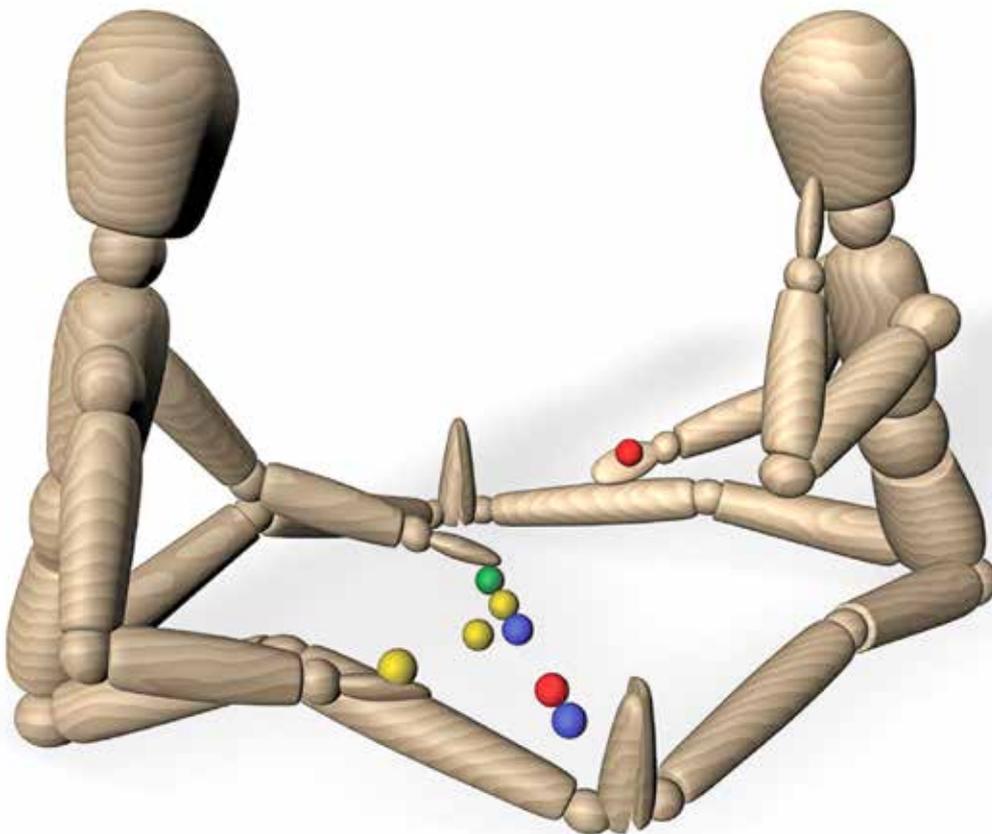
*Read more in chapter 6.1. Working as an inspector.*

An inspector is regarded above all as an expert in safety matters; it should be noted that safety must be taken into account much earlier than at the point at which an inspection is carried out. Most tasks (maintenance, project management etc.) require some knowledge of safety although other skills will take priority.

*Read more in chapter 6.2. Other safety related tasks.*

Without maintenance an inspection is merely a description of the area's safety without any practical benefit. Routine maintenance upholds the condition of the equipment and the whole area. During corrective maintenance works repairs are made to broken structures where necessary. Maintenance can also be used to improve the overall operation and usability of the area.

*Read more in chapter 6.3. Maintenance.*



o87

"Marble contest"

# 7. RiSk ASSESSMENT

A person performing annual inspections and other challenging security-related tasks must fully understand how risk assessment is undertaken. Although industry standards are useful they are only sufficient for basic solutions; a creative designer will generally try and design a creative and exiting environment.

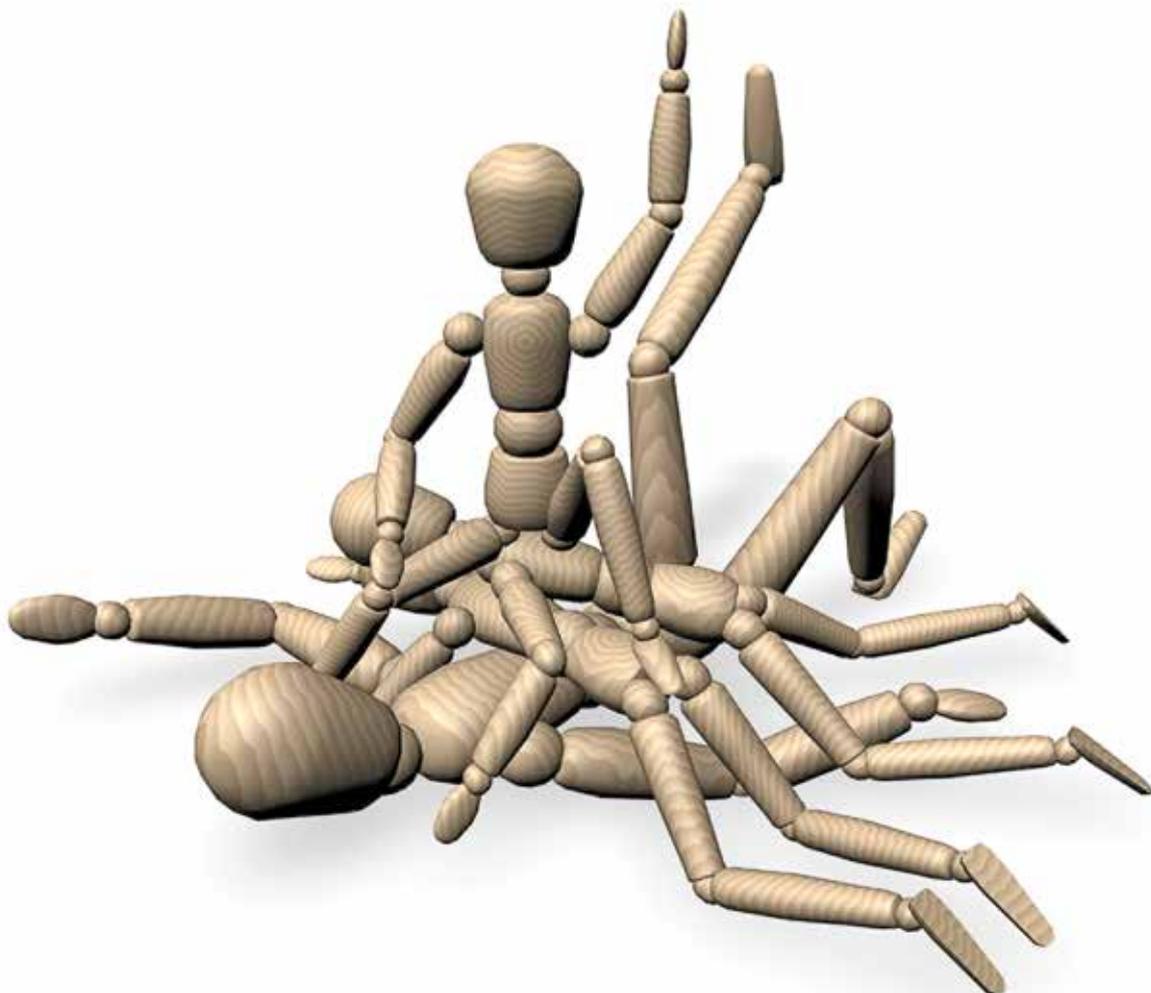
*Read more in chapter 7.1. Why risk assessment is needed?*

Anthropometric dimensions lay the foundation for standards, design of equipment, and risk assessment; these measures are especially useful when the standards do not have specific safety requirements for a given feature.

*Read more in chapter 7.2. Anthropometric measurements.*

Risk assessment has two methods that support each other: legally valid and lengthy but precise RAPEX risk assessment and intuitive risk matrix for field work; the inspector must fully understand both.

*Read more in chapter 7.3. Risk assessment methods.*



091

"Wrestling"

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INTRODUCTION

SAFETY  
MANAGEMENT

TECHNICAL  
PRODUCTION

SAFETY  
REQUIREMENTS

SAFETY OF  
LAYOUTS

INSPECTIONS &  
MAINTENANCE

RISK  
ASSESSMENT

QUICK SEARCH

# INSPECT

Full 7 day training for inspectors

- Annual inspections
- Post-installation inspections

# PROJECT

Comprehensive 4 day training

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- Project management

# DESIGN

Compact 3 day training

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# MANAGE

Compact 3 day training

- Risk management
- Organising inspections and maintenance

# OPERATE

Effective 1 day overview

- Maintenance and operational inspections