# INTERNATIONAL STANDARD

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### Sports and recreational facilities — Trampoline parks — Safety requirements

Installations sportives et récréatives — Parcs de trampolines — Exigences de sécurité





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#### **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 83, Sports and other recreational facilities and equipment, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 136, Sports, playground and other recreational facilities and equipment, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.

#### Introduction

Trampoline parks offer a wide range of social, recreational and sport-based activities and can be aimed towards people of varying ages and skill levels. Risk-taking is a feature of trampoline parks. Trampoline parks aim to offer users the chance to encounter acceptable risks as part of a stimulating, challenging and controlled environment. As such they have the responsibility to balance the need to offer risk and the need to keep users safe from serious harm.

The existence of and adherence to this document will not prevent all injuries. Trampoline use has an inherent risk of injury, particularly if the equipment is used or supervised improperly. A high percentage of trampoline park users are children. Children benefit from, and develop knowledge and skill by, experimenting on equipment.

This document aims to define requirements that minimize the likelihood of serious and fatal accidents while allowing users, especially children, to expand their level of competence, socialize and enjoy themselves.

The most serious risks involved in any trampolining activity are spinal and neck injuries that can The most serious risks involved in any trainpoining activity arise from incorrectly performed actions and failed landings. Experience has shown that adolescents and adults are more likely to perform high-risk actions. In trampoline parks the most frequent injury mechanisms are uncontrolled landings and misjudgement of one's own capabilities, resulting in both minor and more severe injuries.

For trampoline parks, potential risks can be reduced through construction (design, manufacture and installation) and operation (supervision, staff training, maintenance, instructions and continuous risk management etc.). Ongoing work to identify possible risks and injury scenarios is essential to ensure that all critical risks are mitigated and that all reasonable safety measures are established in the form of safety policies, safety procedures, safety information to users, staff education, etc.

This document aims to:

- reflect the range of trampoline park concepts found on the market, from parks for children to areas aimed at target groups with high gymnastic demands and prior knowledge;
- set a general framework for design and operating conditions;
- prevent accidents with a disabling or fatal consequence;
- not restrict the manufacturer's construction freedom;
- not to restrict the operator's operational freedom;
- allow and encourage innovation;
- provide a direction for future developments for existing and new trampoline parks.

The committee recognized that they had a duty of care to protect trampoline park users from hazards that may not be obvious to the user. With these factors in mind, the Committee agreed that the document should aim to provide requirements to minimize the hazards known to cause injury.

This document is the result of an extensive process with a large group of experts from 3 continents that was finalized under COVID-19 conditions. It has proven challenging to come to a document that allows for all cultural and legal differences, since around the world similar installations are operated differently. This document is hesitant to set requirements that limit or block nonconventional-but-safe methods of operation. In applying this document, the legal and social conventions of the country in which the trampoline park is operated should be followed.

## Sports and recreational facilities — Trampoline parks — Safety requirements

#### 1 Scope

This document specifies safety requirements for the design, construction, inspection and maintenance of trampoline parks and their components.

This document also specifies minimum operational requirements to ensure an appropriate level of safety and service when used for recreational, training or educational purposes.

This document is applicable to trampoline parks and trampoline park areas within multi activity parks. This also includes landing areas such as airbags and foam pits.

This document is intended for use by trampoline park manufacturers, installers, operators, inspectors and enforcement bodies.

This document does not cover:

- a) general building regulations;
- b) fire regulations;
- c) planning regulations;
- d) water testing;
- e) food and drink provision;
- f) non-trampoline activities e.g. artificial climbing, parkour, obstacle courses and miscellaneous future activities;
- g) chemical composition of components;
- h) outdoor trampoline parks;
- i) equipment and procedures covered by the referenced documents listed in <u>Clause 2</u>;
- j) general aspects of work safety.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 913:2018+A1:2021, Gymnastic equipment — General safety requirements and test methods

EN 1176-1, Playground equipment and surfacing — Part 1: General safety requirements and test methods

EN 12503-1, Sports mats — Part 1: Gymnastic mats, safety requirements

EN 12503-2, Sports mats — Part 2: Pole vault and high jump mats, safety requirements

EN 13219:2008, Gymnastics equipment — Trampolines — Functional and safety requirements, test methods

EN 13814-1, Safety of amusement rides and amusement devices – Part 1: Design and manufacture