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Australian STANDARD®

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Stationary training equipment

Part 9: Elliptical trainers, additional specific safety requirements and test methods



AS ISO 20957.9:2021

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Preface

This Standard was prepared by the Standards Australia Committee CS-101, Sports and recreational facilities and equipment.

The objective of this document is to specify additional safety requirements for elliptical trainers in addition to the general safety requirements of AS 20957.1:2021. In particular, this document specifies safety requirements for cardiovascular equipment with a closed pattern motion and/or a reciprocating motion, where the user's feet are designed to be in contact with the footplatform, but not including steppers, performed from either a standing or seated position.

This document is identical with, and has been reproduced from, ISO 20957-9:2016, *Stationary training equipment — Part 9: Elliptical trainers, additional specific safety requirements and test methods* and its *Amendment No. 1 (2019)*, which has been added at the end of the source text.

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text "this part of ISO 20957" should read "this document".

(b) A full point substitutes for a comma when referring to a decimal marker.

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The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

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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 www.iso.org/directives).

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 www.iso.org/patents).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 83, *Sports and other recreational facilities and equipment*.

ISO 20957-9 was prepared by Technical Committee ISO/TC 83, *Sports and other recreational facilities and equipment* and by Technical Committee CEN/TC 136, *Sports, playground and other recreational facilities and equipment* in collaboration.

This second edition cancels and replaces the first edition (ISO 20957-9:2005), which has been technically revised. The main changes are as follows:

a) publication as an EN ISO;

b) formulation aligned with ISO 20957-1;

c) Clause 5 specified and restructured;

d) Clause 6 specified and restructured;

e) Normative references updated.

ISO 20957 consists of the following parts, under the general title, *Stationary training equipment*:

— *Part 1: General safety requirements and test methods*

— *Part 2: Strength training equipment, additional specific safety requirements and test methods*

— *Part 4: Strength training benches, additional specific safety requirements and test methods*

— *Part 5: Pedal crank training equipment, additional specific safety requirements and test methods*

— *Part 6 Treadmills, additional specific safety requirements and test methods*

— *Part 7: Rowing machines, additional specific safety requirements and test methods*

— *Part 8: Steppers, stairclimbers and climbers — Additional specific safety requirements and test methods*

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— *Part 9: Elliptical trainers, additional specific safety requirements and test methods*

— *Part 10: Exercise bicycles with a fixed wheel or without freewheel, additional specific safety requirements and test methods*

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Introduction

This part of ISO 20957 contains additional requirements to ISO 20957-1. The requirements of this specific International Standard take precedence over those in the general standard.

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NOTES

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Stationary training equipment

Part 9: Elliptical trainers, additional specific safety requirements and test methods

1 Scope

This part of ISO 20957 specifies additional safety requirements for elliptical trainers in addition to the general safety requirements of ISO 20957-1.

This part of ISO 20957 specifies safety requirements for cardiovascular equipment with a closed pattern motion and/or a reciprocating motion, where the user's feet are designed to be in contact with the footplatform, but not including steppers, performed from either a standing or seated position.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4649:2010, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device*

ISO 20957-1:2013, *Stationary training equipment — Part 1: General safety requirements and test methods*

EN 71-1, *Safety of toys — Part 1: Mechanical and physical properties*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20957-1 and the following apply.

3.1
elliptical trainer
stationary training equipment which can produce a continuous closed pattern motion and/or a reciprocating motion similar to an elliptical type of foot action used from a seated or standing position and can include upper body training devices

3.2
footplatform
surface designed to support the foot whilst performing the exercise determined by the manufacturer or for user mounting and dismounting

3.3
footplatform guard
part of the structure designed to help prevent the foot from moving off the footplatform to the inside or front

3.4
movable handlebar
handlebar that is linked to the pedals and moves during the exercise

EXAMPLE Levers used for upper body training.

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