

Australian/New Zealand Standard™

**Assistive products for walking
manipulated by one arm—Requirements
and test methods**

Part 1: Elbow crutches



AS/NZS ISO 11334.1:2014

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-067, Assistive Technology Products for Persons with Disability. It was approved on behalf of the Council of Standards Australia on 8 January 2014 and on behalf of the Council of Standards New Zealand on 30 January 2014. This Standard was published on 17 February 2014.

The following are represented on Committee ME-067:

Assistive Technology Suppliers Australasia
Association of Consultants in Access Australia
Australian Rehabilitation and Assistive Technology Association
Bus & Coach Association of New Zealand
Consumers Federation of Australia
Department of Family and Communities (SA)
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Part 1: Elbow crutches

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-067, Assistive Technology Products for Persons with Disability.

The objective of this Standard is to specify requirements and test methods for elbow crutches fully equipped with handgrip and tip. The methods specify testing of separation, static load capacity, fatigue and resistance to low temperature embrittlement.

This Standard is identical with, and has been reproduced from ISO 11334-1:2007, *Assistive products for walking manipulated by one arm—Requirements and test methods*, Part 1: *Elbow crutches*.

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text this part of ISO 11334-1 should read this Australian/New Zealand Standard.
- (b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS ISO	
9999	Assistive products for persons with disabilities—Classification and terminology	9999	Assistive products for persons with disabilities—Classification and terminology

Only normative references that have been adopted as Australian or Australian/New Zealand Standard have been listed.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

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AUSTRALIAN/NEW ZEALAND STANDARD

**Assistive products for walking manipulated by one arm—
Requirements and test methods****Part 1:
Elbow crutches****1 Scope**

This part of ISO 11334 specifies requirements and test methods for elbow crutches fully equipped with handgrip and tip. The methods specify testing of separation, static load capacity, fatigue and resistance to low temperature embrittlement.

This part of ISO 11334 also gives the requirements relating to safety, ergonomics, performance, and information to be supplied by the manufacturer, including marking and labelling.

The requirements and tests are based on every-day usage of elbow crutches when performing the through-swing gait, for a maximum user mass as specified by the manufacturer. This part of ISO 11334 is applicable to elbow crutches specified for a user mass of not less than 35 kg.

Requirements and test methods for friction of rubber tips against the walking surface are dealt with separately.

NOTE The recommendations given in Annex A supplement the requirements given in this part of ISO 11334.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 9999, *Assistive products for persons with disabilities — Classification and terminology*

EN 1041, *Information supplied by the manufacturer with medical devices*

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3.1**elbow crutch**

assistive product for walking with one leg, a handle and a non-horizontal forearm support

See Figure 1.

NOTE Classification no. 12 03 06, according to ISO 9999.

3.12**cuff**

forearm support as used on an elbow crutch to hold the forearm in the correct position and prevent sideways movement

See Figure 1, item 2.

3.13**cuff support line**

line drawn from the rear handgrip reference point and touching the inside rear bottom face of the cuff at maximum extension of the arm section

See Figure 1, item 1 and Figure 2, item 1.

3.14**cuff internal width**

y
maximum internal dimension of the cuff measured left to right

See Figure 3.

3.15**cuff internal depth**

x
internal dimension of the cuff measured front to back

See Figure 3.

3.16**cuff internal height**

z
inside measurement of the cuff which is approximately parallel to the cuff support line and which supports the forearm

See Figure 2.

3.17**tip**

part of the crutch which is in contact with the ground

See Figure 1, item 3.

3.18**leg section axis**

line drawn from the rear handgrip reference point and through the centre of the tip at maximum extension of the leg section

See Figure 1, item 4.

3.19**arm section length**

a
distance measured between the rear handgrip reference point and the highest point where the cuff support line touches the inside rear face of the cuff

See Figure 1.