# INTERNATIONAL STANDARD

ISO 11334-1

> First edition 1994-11-15

# Walking aids manipulated by one arm — Requirements and test methods —

# Part 1:

Elbow crutches

Aides à la marche manipulées avec un bras — Prescriptions et méthodes d'essai —

Partie 1: Cannes à appui antibrachial



#### ISO 11334-1:1994(E)

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Printed in Switzerland

# **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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11334-1 was prepared by Technical Committee ISO/TC 173, *Technical systems and aids for disabled or handicapped persons*.

ISO 11334 consists of the following parts, under the general title *Walking aids manipulated by one arm — Requirements and test methods*:

- Part 1: Elbow crutches
- Part 2: Axillary crutches

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# Walking aids 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 fatigue, separation, static load capacity and resistance to low temperature embrittlement. This part of ISO 11334 also gives the requirements relating to safety, ergonomics, performance, marking and labelling. The tests are based on everyday usage of elbow crutches when performing the through-swing gait.

### 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 11334. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11334 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 9999:1992, Technical aids for disabled persons — Classification.

#### 3 Definitions

For the purposes of this International Standard, the following definitions apply, with reference to figures 1, 2 and 3.

- **3.1 elbow crutch:** Crutch with one leg, a handle and forearm support. Classification No.: 12 03 06 according to ISO 9999.
- **3.2 crutch size:** Size of crutch in accordance with table 1.
- **3.3 handle; handgrip:** That part of the crutch which is normally held in the hand when the crutch is in use.
- **3.4 handgrip support line:** Line drawn through the lowest points, if any, at each end of that part of the handle on which the hand rests.
- **3.5** handgrip length: Distance, h, measured between the two lowest points on the handgrip support line. (See figure 2.)
- **3.6 handgrip width:** Width of the handle measured horizontally at the thickest point where the hand rests. (See figure 2.)
- **3.7 datum:** That point on the upper surface of the handle one-third of the length from the rear end of the handgrip length. (See figure 2.)
- **3.8 arm section:** That part of the crutch which is above the inner end of the handgrip length.
- **3.9 leg section:** That part of the crutch which is below the inner end of the handgrip length.
- **3.10 cuff:** Forearm support as used on an elbow crutch to hold the forearm in the correct position and prevent sideways movement.