
**Prosthetics and orthotics —
Vocabulary —**

**Part 1:
Normal gait**

Prothèses et orthèses — Vocabulaire —

Partie 1: Démarche normale

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 29783-1:2008

<https://standards.iteh.ai/catalog/standards/iso/1884ce24-c708-495c-bbad-b6833f5bae6a/iso-29783-1-2008>



Reference number
ISO 29783-1:2008(E)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 29783-1:2008](https://standards.iteh.ai/catalog/standards/iso/1884ce24-c708-495c-bbad-b6833f5bae6a/iso-29783-1-2008)

<https://standards.iteh.ai/catalog/standards/iso/1884ce24-c708-495c-bbad-b6833f5bae6a/iso-29783-1-2008>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2008

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 29783-1 was prepared by Technical Committee ISO/TC 168, *Prosthetics and orthotics*.

ISO 29783 consists of the following parts, under the general title *Prosthetics and orthotics — Vocabulary*:

- Part 1: *Normal gait*
- Part 2: *Prosthetic gait*
- Part 3: *Pathological gait*

<https://standards.iteh.ai/>

<https://standards.iteh.ai/catalog/standards/iso/1884ce24-c708-495c-bbad-b6833f5bae6a/iso-29783-1-2008>

Prosthetics and orthotics — Vocabulary —

Part 1: Normal gait

1 Scope

This part of ISO 29783 establishes a vocabulary for the description of normal gait.

2 Terms and definitions

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

2.1

body load loading

force exerted by the foot upon the ground at any time during the stance phase due to gravity and the forward, sideways and vertical accelerations of the body mass

2.2

cadence

number of steps taken per unit of time in steps per second

2.3

double support

those two parts of the gait cycle when both limbs are in contact with the ground

NOTE The first of these (approximately 0 % to 10 % of the gait cycle) commences after initial ground contact (and ends as the contralateral limb commences initial swing) the second (approximately 50 % to 60 % of the gait cycle) commences at the beginning of pre-swing (and ends as the limb commences initial swing).

2.4

gait cycle

the sequence of actions of a lower limb usually taken from initial contact of the foot until the next initial contact of the same foot when walking or running

2.5

ground reaction force

reaction by the ground to the force exerted by the foot at any time during the stance phase

2.6

pelvic obliquity

alignment of the pelvis (moves upwards or downwards) in the coronal plane

2.7

pelvic rotation

alignment of the pelvis (moves forwards or backwards) in the transverse plane

2.8

pelvic tilt

alignment of the pelvis (anterior or posterior movement) in the sagittal plane

2.9

single support

that part of the gait cycle when only the limb under consideration is in contact with the ground

2.10

stance phase

that part of the gait cycle during which the limb is in contact with the ground

NOTE The stance phase is further described by reference to five sub-phases (see 2.10.1 to 2.10.5).

2.10.1

initial contact

sub-phase of the stance phase which commences at the instant of initial foot contact and ends when knee flexion and ankle plantarflexion commence

2.10.2

loading response

sub-phase of the stance phase which commences after initial contact and continues until full foot contact occurs

2.10.3

mid-stance

sub-phase of the stance phase which commences when the contralateral limb commences its swing phase and ends when the heel leaves the ground

2.10.4

terminal stance

sub-phase of the stance phase which commences when the heel leaves the ground and ends at initial contact of the contralateral limb

2.10.5

pre-swing

final sub-phase of the stance phase which commences with initial contact by the contralateral foot and ends when the foot loses contact with the ground

2.11

step length

distance (measured in the line of progression) between the point of initial contact of a foot and the point of initial contact of the opposite foot in successive steps in metres

2.12

stride length

distance between the point of initial contact of the same foot in successive gait cycles in metres

2.13

swing phase

that part of the gait cycle during which the limb is not in contact with the ground

NOTE The swing phase is further described by reference to three sub-phases (see 2.13.1 to 2.13.3).

2.13.1

initial swing

sub-phase of the swing phase which commences as the foot loses contact with the ground and ends when the limb achieves maximum knee flexion