

International Standard

ISO 13404-1

Prosthetics and orthotics — External orthoses and orthotic components —

Part 1:

Uses, functions, classification and description of lower limb orthoses

iTeh Standards

Prothèses et orthèses — Orthèses externes et composants d'orthèses —

Partie 1: Utilisations, fonctions, classification et description des orthèses pour les membres inférieurs

First edition 2024-11

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

ISO 13404-1:2024

https://standards.iteh.ai/catalog/standards/iso/eb552cee-ca9b-43e9-bf23-187486a90fc7/iso-13404-1-2024



COPYRIGHT PROTECTED DOCUMENT

© ISO 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

ISO 13404-1:2024(en)

Contents		Page
Fore	reword	iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Uses	
5	Functions	
6	Classification	5
7	Description 7.1 Method of fabrication 7.2 Type	5
8	Components of orthoses 8.1 General 8.2 Structural components 8.3 Interface components 8.4 Orthotic joints 8.4.1 General description 8.4.2 Motions 8.4.3 Mode of motion 8.4.4 Axis of rotation 8.4.5 Control and activation 8.5 Functional electrical stimulators 8.6 Finishing components	56 66 67 77 77 77
Rihl	bliography Document Pre	

ISO 13404-1:2024

https://standards.iteh.ai/catalog/standards/iso/eb552cee-ca9b-43e9-bf23-18/486a90fc//iso-13404-1-2024

ISO 13404-1:2024(en)

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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 168, *Prosthetics and orthotics*.

This first edition of ISO 13404-1 cancels and replaces ISO 13404:2007, which has been technically revised.

The main changes are as follows:

- introduction of a new <u>Clause 4</u> on uses; _{ISO 13404-1:2024}
- http://date of Clause 5; //catalog/standards/iso/eb552cee-ca9b-43e9-bf23-187486a90fc7/iso-13404-1-2024
- 8.4.5 has been renamed "Control and activation" and its content has been updated to reflect the development of modern orthotic components;
- addition of functional electrical stimulators to Clause 8.
- a focus on lower limb orthoses.

A list of all parts in the ISO 13404 series can be found on the ISO website.

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 www.iso.org/members.html.

ISO 13404-1:2024(en)

Introduction

This document is intended for practitioners prescribing and/or providing external lower limb orthoses, for manufacturers describing their products, and for those researching and reporting on orthotic use.

External lower limb orthoses are used to treat a wide range of impairments of body functions and structures that impact the lower limb and to assist in overcoming limitations during everyday activities.

Definitions of prefabricated, adaptable, user-matched and custom-made orthoses were changed due to international regulations. Users can refer to the applicable national regulatory documents for details in definitions and local differences in terminology and responsibilities.

Uses, functions, classification, method of fabrication, types, and components of the orthotic device should be described within general healthcare procedures.

For further specifics on foot orthoses, refer to ISO 21064 and for further specifics on soft orthoses for the lower limb, refer to ISO 21063.

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

ISO 13404-1:2024

https://standards.iteh.ai/catalog/standards/iso/eb552cee-ca9b-43e9-bf23-187486a90fc7/iso-13404-1-2024

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

ISO 13404-1:2024

https://standards.jteh.aj/catalog/standards/jso/eb552cee-ca9b-43e9-bf23-187486a90fc7/jso-13404-1-2024