CDS® WRIST BRACE DUO

DYNAMIC SPRING-LOADED WRIST ORTHOSIS





User Instructions

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User Instructions

1. Introduction

1.1. Foreword

Dynamic spring-loaded orthoses can be used to treat joint contractures caused by both neurological and orthopaedic conditions. The shortening of the tissue surrounding the joint decreases the range of motion affecting the patient's everyday life. Therefore, our CDS®-concept aims to increase the range of motion without pain by applying a constant, appropriate low load prolonged stretch (LLPS).

1.2. Customer information

For your own safety please read through these User Instructions carefully and accurately before using the brace. The instructions, notes and procedures must be read and understood thoroughly in order to benefit from the correct operation and use of the device. If anything in the User Instructions is not clear, or any instructions, operating procedures or safety information is not fully understandable, please contact the appropriate specialist retailer or albrecht GmbH directly, before you use the brace. This particularly applies to the safety instructions.

1.3. Mode of operation

The CDS® Wrist Brace Duo functions accordingly to the CDS®-principle and has been designed to treat an extension deficit of the wrist. The brace applies a dynamic low load prolonged stretch to stimulate growth in the contracted tissue. The adjustable redression range protects the tissue from painful overstretching.

1.4. Application

The brace has been designed exclusively for the orthotic treatment of the wrist joint and for contact with intact skin.

1.5. Scope of delivery

Please check the completeness of the brace at delivery.

- Brace with padding and straps
- albrecht GmbH hexagon key
- User Instructions
- Strap padding Set

1.6. Declaration of conformity

The albrecht GmbH company, as the manufacturer solely responsible, declares that the CDS® Wrist Brace Duo conforms to the Regulation (EU) 2017/745 concerning medical devices.



1.7. Features

- Therapy in extension and flexion
- Spring tension can be adjusted individually and tool-free
- Stops can be set in flexion and extension
- Immobilization function between 80° extension and 80° flexion
- Shell and strap system can be adjusted individually
- Switchover point can be set between 24° extension and 24° flexion
- Ease of handling and highly comfortable to wear

1.8. Indications

The physician will prescribe the type of treatment to apply based on his or her diagnostic findings.

Generally, the use is indicated in:

- Joint contractures:
 - After surgery
 - After conservative treatment of capsular ligament injuries
 - In arthrosis and chronic polyarthritis
 - After burns
 - After strokes
 - After spinal cord injuries
 - After cranio-cerebral trauma (CCT)
- To prevent new contractures after arthrolysis
- Treatment after biceps tendon rupture

For all other indications a physician must be consulted.

1.9. Contra-indications

 Bony obstruction, osteoporosis thrombophlebitis

The brace is intended exclusively for contact with intact skin.

User Instructions

1.10. Safety Instructions

The optimal effect of the brace is only achieved when used correctly.

- The brace must only be used in the intact, complete and mechanically undamaged condition and with complete and intact cushioning and walers. This must be verified by the user before each usage.
- Opening or removing one or more belts, as well as excessive loosening of the waler when using the brace leads to a reduction of the therapeutic effect of the brace and may lead to injury.
- The brace must not be worn over open wounds.
- The skin should be free of oils, grease, gels or other debris, to prevent reactions with the skin or the structure of the material.
- The orthosis should fit firmly but not too tight, so as not to restrict the blood circulation and adversely affect nerve and lymph vessels. Excessive compression is therefore to be avoided.
- Combination with other products is currently not provided for or is to be agreed with the manufacturer in writing.
- The brace is not intended for single use, but is intended for multiple use by a single person.
- The product as delivered is not sterile.
- Contact your physician immediately in the event of an allergic reaction.
- Please note that cushioned sections can heat up under direct sunlight. Protect the orthosis from direct sunlight if necessary.

- Currently there is no test for flammability. Exercise caution when using the orthosis in the direct vicinity of open flames such as lighters and cigarettes.
- The mechanical functions must only be adjusted using the supplied tools in order to avoid injuries and damage of the hinge.

1.11. Warranty

In addition to the legal warranty, we provide a 6-month durability guarantee for the orthosis. If properly used, this guarantees that the orthosis will function without fault. This excludes the padding and straps, which are usually liable to a certain amount of wear and tear. This kind of wear and tear does not represent a product defect. This manufacturer's warranty is subject to the condition that the orthosis is used as a medical rehabilitation device and for no other purpose than that described in the instructions for use. Changes to the orthosis or the removal / damage to the quality management seal will invalidate the warranty.



2. Adjustment by the orthopaedic technician

2.1. Fitting to the patient

- Our CDS® braces are constructed to be adjustable.
- The position of the shell components can be changed and they can be shaped.
- The strap lengths can be adjusted to different girths and shortened if necessary.

User Instructions

2.1.1. Setting the shell components

- 1 Remove the pad.
- 2 Loosen the screws on the shell components with the supplied tool.
- 3 Move the shell components into the desired position.
- 4 Tighten the screws again.
- **5** Insert the pad again.











The shell components can be adjusted to the shape of the extremity.



2.1.2. Setting the limitation

- 1 Turn the outer ring with marker clockwise as far as the stop.
- 2 Set the stop to the desired number of degrees.
- 3 Turn the outer ring back until the marker engages at the stop.
- **4** Turn the outer ring with marker anticlockwise as far as the stop.
- 5 Set the stop to the desired number of degrees.
- **(3)** Turn the outer ring back until the marker engages at the stop.



Hinge in neutral position













User Instructions

2.1.3. Setting the switchover point

- Align the spring push rod between the two setting marks on the hinge rod.
- 2 Press the knob to unlock it and turn it clockwise in this position as far as the stop.
- 3 Set the desired switchover point.
- 4 Turn the knob anticlockwise until it springs back.











2.1.4. Optional disassembly of the thumb plate

The thumb plate can be removed if not needed.

Loosen the two screws with the supplied tool and remove the thumb plate.





Please note that the thumb plate consists of PE and is thermally deformable.

User Instructions

2.1.5. Adjusting the palm plate

- 1 Loosen the screw in the fixing disk with the supplied tool.
- 2 Turn the palm plate into the desired position and position the retaining pin. Ensure that the retaining pin of the fixing disk clicks into the hole pattern of the retaining rod.
- 3 Then tighten the screws again.









2.1.6. Optional additional length adjustment of the hand piece

- 1 Loosen the lock screw.
- 2 Loosen the screw in the fixing disc with the supplied tool.
- 3 Move the hand piece foward until it stops.
- 4 Tighten the lock screw again.
- **5** Tighten the screw in the fixing disk.











User Instructions

2.2. Application of the brace by the orthopaedic technician

2.2.1. Open the strap clips

To facilitate attaching of the brace on the patients, adjust the length of all brace straps to their maximum length without unthreading them.



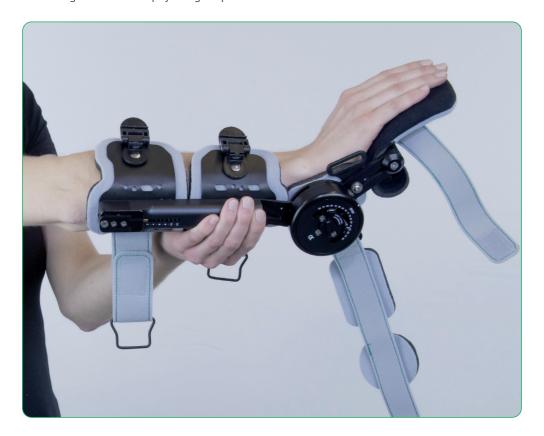






2.2.2. Attaching the brace to the arm

Place the brace on the patient's arm from the side. Ensure that the pivot of the brace hinge matches the physiological pivot of the wrist.



User Instructions

2.2.3. Instructions for looping the handstrap

Adjust the straps to the desired length and shorten them if necessary containing the doublesided hook end.

- 1 Take the shorter strap with the stitched tab, loop it through the eyelet with the Velcro facing upwards and fasten it.
- 2 Thread the loop onto the strap, position the Velcro and fasten it.
- 3 Take the strap with the fleece stitched to it and thread it through the strap loop, then fasten it with the Velcro.
- 4 Thread the strap through the loop and position the Velcro.











- 5 Pass the strap under the finger plate and fasten it firmly.
- 6 Position the strap pad under the loop.
- **7** Shorten the strap as needed.







User Instructions

2.2.4. Final adjustment

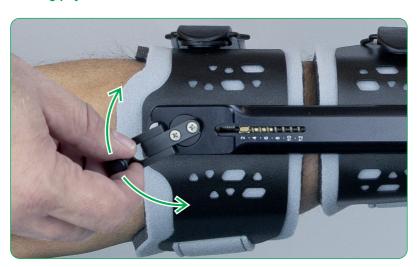
After fastening the individual straps, check that the straps are the correct length and that the brace is in correct position, and correct if necessary. Ensure that the straps are not too tight so as not to interfere with the circulation. If necessary, the padding supplied with the product can be attached under the straps.



2.2.5. Setting the spring tension to the intensity needed by the patient

You can set the spring tension by the hinged crank on the forearm of the brace. After flipping up the crank, you can increase the spring tension by turning it clockwise. Then close the crank again.

The spring tension may be adjusted only in consultation with the treating physician.



2.2.6. Changing the spring tension

The spring tension can be adjusted to treatment progress. After flipping up the crank, you can increase the spring tension by turning it clockwise and reduce it by turning it anticlockwise.

The spring tension may be adjusted only in consultation with the treating physician.

User Instructions

3. Handling by the patient

3.1. Removing the brace

1 - 5 Open the straps

To remove the brace, open the clips and straps in the stated order.











6 Remove the brace downwards Take off the brace.









User Instructions

3.2. Putting on the brace

Close the clips in the stated order.

- 1 Place the brace on your arm from the side.
- 2 First fasten the forearm strap next to the joint.











- 3 Fasten the forearm strap further from the joint.
- 4 Fasten the hand dorsum strap.
- **5** Fasten the finger strap.
- 6 Fasten the thumb strap.









User Instructions

- 7 Fasten the thumb strap.
- 8 Brace application complete.









Hand wash at 30°C



Do not bleach



Do not iron





Do not tumble dry

4. Cleaning, maintenance and disinfection

The orthosis is designed to be maintenance-free. To ensure proper operation over the period of treatment the orthosis should be cleaned regularly (at least every 3 months) or as required, according to the following instructions.

4.1. Pads and straps

- All fabrics can be washed by hand at 30°C using water and a mild detergent and/or disinfectant.
- Not machine washable.
- In the case of more severe soiling, a replacement set of textile parts is available.

4.2. Rods (hinges)

- Clean all parts of the brace with a wet cloth soaked with water and a mild detergent and/or disinfectant
- Wipe down surfaces with a cloth soaked with disinfectant.
- Wet completely, and do not wipe off.
- Spray inaccessible surfaces.
- When spraying ensure complete wetting.
- A mild alcohol-based disinfectant is recommended.

Ask your physician or pharmacist when selecting a disinfectant, and follow the instructions given by the disinfectant manufacturer. The Robert Koch list of approved disinfectants can be found at www.rki.de.

User Instructions

5. Technical data

Name	Material		
Weight	788g		
Padding material	PU foam with PA hook and loop velour		
Strap material	PA strap with PA hook and loop velour		
Brace material	aluminium		

6. Size chart and article numbers

Name	Length forear- marm shell	Circumference forearm	Circumference wrist	Width palm plate	ArtNo. left	ArtNo. right
Wrist Duo L/L	21 - 23,5 cm	22 - 30 cm	20 - 30 cm	10 cm	930LL-L	930LL-R
Wrist Duo L/M	21 - 23,5 cm	18 - 24 cm	16 - 26 cm	8 cm	930LM-L	930LM-R
Wrist Duo L/S	21 - 23,5 cm	14 - 19 cm	12 - 22 cm	6 cm	930LS-L	930LS-R



7. Transfer of the brace

The brace is not intended for single use, but rather is intended for multiple use by a single person. We do not recommend transfer to other users. Should this be desired however, please ensure to pass on the care and cleaning instructions and have the brace checked by an authorized specialist dealer for safe and proper operation.

8. Disposal

The brace contains recyclable materials without toxic or other harmful substances or other environmentally hazardous substances. Provided it is not contaminated with infectious germs, the brace can be deposited in the normal waste disposal. To be sure, consult your specialist orthopaedics dealer.

Duty to report

Due to regional legal regulations, you are required to immediately report any serious incident involving the use of this medical device to the manufacturer and the responsible authorities. Please find our contact details on the back of this brochure.

PATENTS: DE 199 04 554 / EP 1 482 881 / US 7,083,583 / DE 10 2015 012 320 / EP 3 146 944

FURTHER PATENTS PENDING

VERSION: EN 01.2023



Medical device



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