

THE AMBROISE DYNAMIC WRIST ORTHOSIS[™]

Part of the IMS series



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PRODUCT INFORMATION

PROFESSIONAL



AMBROISE DYNAMIC WRIST ORTHOSIS USER INFORMATION

The ADPO (The Dutch abbeviction for Ambroise Dynamic Wrist Orthosis) has been developed to support a dropping hand. In this manual more about the causes of decreased strength in the wrist can be read. The operating principle of the wrist orthosis is explained.

WHEN AN ADPO?

The ADPO is developed for individuals with a fully or partially paralyzed wrist where the nerves that stimulate the muscles around the wrist are damaged. Because the muscles are no longer active in the arm, the hand can not be lifted properly. Also often oedema formation can be seen in the hand, the fingers and the forearm.

CAUSES 'DROPPING' HAND

A dropping hand is caused by damage to one of the three major arm nerves (the radial nerve). This can have many reasons. These include the effects of a broken bone or nerve oppression, but also because of paralyzes after a stroke.

HOW DOES THE ADPO WORK?

The ADPO is a light weight wrist orthosis which dynamically pushes the hand up with the aid of an adjustable spring. The spring force can be adjusted easily.

TREATMENT IS NECESSARY

A hand which can not be lifted properly, and is left in its position can lead to a shortening of the muscles (contracture) so that it is becoming increasingly difficult and painful to move the hand upwards.

DONNING THE ADPO

The ADPO is easy to put on. Insert the forearm through the untill the hand leans on the palm tube. (Figure I). The palm tube must be positioned nicely in the fold in the middle of the hand.

The orthosis is very comfortable because contact with the hand(palm) is minimized. This ensures optimal ventilation.



Figure 1: The ADPO

Advantages of the ADPO

- Active and dynamic correction of the wrist.
- ⊘ No limitation of normal hand- and wrist mobility.
- ✓ Light weight.
- \bigcirc High comfort of wearing.
- Seasy donning and doffing.
- 🕑 Can be worn underneath clothing.
- ${}^{igodoldsymbol{arsigma}}$ Individually adjusted and therefore great fitting.

AN ADPO FOR YOU?

Our clinical experts will be happy to evaluate with you what the best solution is in your case. Contact us now to learn about the options to get an ADPO in your region.

Your local orthotist and physiatrist can also indicate whether the ADPO is a viable option in the treatment of your situation.

If you want more information about the wrist orthosis, or if you are wondering if the ADPO could benefit you, call us today on +31 (0)53 430 28 36 or email us at info@ambroise.nl.







AMBROISE DYNAMIC WRIST ORTHOSIS PRODUCT INFORMATION

ADPO VERSIONS

The ADPO is available in one size, which can be easily adapted to the arm of the user. In particular, the hand part must be individually contoured to the hand.

ITEM NUMBERS

Left ADPO:	250151
Right ADPO:	250152
Set pliers 4/5 mm:	300180
Spring adjustment Rod:	250235

MAINTENANCE ADPO

The ADPO can be cleaned with a damp cloth.

REPLACEMENT OF SPARE PARTS

It may occur that parts of the orthosis need to be replaced. Of course you can order these from us. Please contact us and we will send a replacement part.

ADJUSTING THE ORTHOSIS

If you have the feeling the orthosis is too tight (pinches) or too loose (slips) it is important that the orthosis will be properly fitted.

SPECIFICATIONS

Weight of the orthosis: 100 gram. Rance of motion: 45° palmair - 80° dorsaal Moment minimaal: 0 Nm Moment maximaal: 1 Nm



Figure 2: The ADPO, top view





. Ambroise

AMBROISE DYNAMIC WRIST ORTHOSIS INFORMATION FOR THE PROFESSIONAL

PRODUCT PACKAGE

- one wrist orthosis, including pelotte carriers and thermoplastic pelottes
- one handconnector, including set screw
- one palm tube, including end cap palm tube
- one end plug for the arm rod
- one polyform hinge-cover
- one glue tube (contains Loctite[®] 638)

FITTING MANUAL

 Place the arm rod laterally over the imaginary axis of the forearm. Place the hinge-axis at about the same height as the ulna's protrusion. The proximal pelotte carrier is placed at the bottom side of the arm. The distal pelotte carrier is located just proximally of the wrist at the top side of the arm, without limiting wrist flexion. Shape pelotte carriers with the Ambroise pliers 300180 (4/5 mm) (figure 3) to fit to width and shape of the arm. Remove pelottes if necessary.



 Shape the hand bar with the pliers to fit the lateral shape of the hand (figure 4). Place the handconnector and the palm tube in the required position, as done in figure 4. Mark the position and orientation of the handconnector. Saw off the handbar (and/or palm tube) to fit the position.



Figure 4: Palm tube

3. Glue the handconnector on the desired position. Always roughen the objects with sandingpaper and clean thoroughly (e.g. with aceton) before applying the glue. Fasten the set screw of the handconnector (figure 5). Then glue the palm tube to the connector and place the endcap. The glue will harden in 15 minutes but will have functional strength only after 3 hours.



- 4. Adjust the spring after the glue has hardened. To do this, remove the spring pin and place it in the desired hole. A more distal position corresponds with a higher spring force (figure 7). To remove the spring pin, the spring should first be released of tension on the pin. This tension secures the spring pin in its place. To this end (250235), the spring release rod is used (figure 8).
- Finally, the ADPO needs to be covered. Therefore, apply the padding on the medial side of the hinge-cover. The padding is suited with double-sided tape. Lastly, tap the end plug into the arm rod.



Figure 6: Keep styloid free from hinge relatively aligned to each other.



Figure 7: Spring resistance

- 6. Placing the pelottes: slide the black outer shell with grooves around the tube. Start with the first groove and finish at the last groove. Slide the two flaps of the inner shell in the outer groove of the outer shell. Push the inner shell with some force in an S-bend and remove the yellow strip so that adhesive strip is visible Make sure the two flaps rest on either slot of the outer shell. Watch the instructional video on our YouTube channel.
- Measure from the inner groove to the outer groove to determine the size if you need to order a replacement pelotte.



Figure 8: Releasing the spring







Placing pelottes. Identical for al IMS pelottes. In this series you see the application to the Wilmer Elbow Orthosis.



I. Slide the outer shell on the tube (matte side out).



3. Remove the yellow strip, and press the flaps of the inner shell trough the first groove of the outer shell.



3. Press the flaps of the inner shell through the outer groove of the outer shell.



5. Remove the yellow strip so that the adhesive strip is exposed.



2A: inner shell + 2B: outer shell.



4. Shape an S-bend.



4. Push the flaps properly through the groove so they are visible on the outside.



6. Press the adhesive strip well.





ORDER FORM SPECIAL SIZES PELOTTE CARRIERS

Mail this form to info@ambroise.nl to order differently sized pelotte carriers for the wrist orthosis.



Size	Pelotte	te size Suitable		Lower limit	Upper limis	ltem code	Amount		
IMS-XS	60 mm	wrist	160 mm	140 mm	180 mm	250350			
IMS-S	80 mm	forearm upper arm	200 mm 220 mm	180 mm 200 mm	220 mm 240 mm	250351			
P1 is mounted on 150 mm of the wrist. Standard made with IMS-S. P2 is just behind the wrist. Standard made with IMS-XS.									



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