



# The Future of Ankle Bracing is Here

Exos™ Free Motion Ankle  
Reduce Pain. Restore Mobility.  
Decrease Cost.



## FAQ's

### Application, Forming & Fitting

#### ● What is the procedure for Forming & Fitting Exos™ Free Motion Ankle?

There are the 7 Steps to Fitting (see 7 Steps Fitting Wall Chart)

• Heat Brace:	<b>7 minutes</b> on high in the recommended EXOS™ oven (800-OVEN-US).
• Prep patient:	<b>Apply Sock</b> on patient and <b>Relief Pads</b> on bony prominences.
• Apply product:	With patient Prone; leg bent at 90 degrees; and foot @ 90 degrees. Remove brace from Oven. Position brace on patient, <b>align the medial hinge</b> with medial malleolus. <b>Secure tongue</b> and <b>align spine with Achilles; secure BOA closure system.</b>
• Wrap Foot/Ankle:	<b>Tightly wrap foot &amp; ankle</b> with one elastic wrap; use second wrap to <b>loosely wrap Tibial cuff</b> to capture shape. Cover entire brace with wrap(s). <b>Open Boa Reel</b> to allow brace to migrate down leg during forming.
• Form Brace:	With one hand, <b>capture the heel by "Squeezing" the wings into calcaneal channel.</b> With other hand <b>create arch. Note:</b> Keep foot in subtalar neutral (level with floor) and aligned with the knee. Clinician can make any necessary anatomical correction (varus/valgus) per the diagnosis.
• Fit brace to shoe:	<b>Trim Plantar surface pad</b> to match insole of shoe.
• Fine tune:	Using heat gun relieve any areas necessary for maximum comfort.

**Important Cooling Time:** Brace must be out of Oven a total of 14 Minutes prior to patient weight bearing. If brace is heated longer than 7 minutes, add that extra time to total cooling time.

#### ● How long does the Exos™ Free Motion Ankle stays warm and pliable?

Exos™ will remain pliable for approximately 3-4 minutes after removing from the Exos™ Oven. The total time it takes to apply and form is relatively short, however once removed from the oven, a total of 14 minutes is required for the product to cool prior patient weight bearing. If the product is heated longer than 7 minutes in Exos Oven, add that time to the cooling time.

● **What is proper position for Hinges?**

- After applying brace – before wrapping & forming – **align the medial hinge with the Apex (high bony prominence) of the Medial Malleolus**, the lateral hinge will fall slightly anterior.
- The mid-point of the hinges (gummy elastomeric piece) should fall within a 1" bull's eye of the malleolus. If they do not, then you will need to size down or up. *Refer to the sizing chart for best guide on sizing.*

● **Why is it important to Align Medial hinge with Apex of medial malleolus?**

- The Tibia is the medial, larger bone & provides primary support.

● **What if the brace is too big or small for patient per the Shoe Size?**

80 – 85% of patients will fit brace according to Shoe Size, however if patient has an EXTRA WIDE foot or SKINNY Calf relative to shoe size, you should check the Sizing Chart/Fitting Guidelines as you may need to check Modified Stirrup length and Calf Circumference to ensure proper fit. Custom orders are available to accommodate unique patient sizes.

● **Where is the proper location for the foot plate sit?**

This varies with each patient. Sometimes the posterior portion of the footplate sits at the edge of the heel or extends beyond the heel. The **key is to ensure the distal end of footplate is behind the Metatarsal heads**. If the footplate is at edge of heel or 'slightly' long or beyond heel, it's okay, cupping the heel of brace sometimes is done during forming. The heel can also be trimmed with scissors while brace is still warm. Edge tape should be applied to the cut edge. **Note:** If brace is trimmed, the warranty would be void. If the posterior foot plate seems short relative to the back of the heel, the plantar surface padding will provide a "bridge" between heel and brace.

● **Do I need special tools to fit the Exos Free Motion Ankle?**

**Yes.** You will need the **NEW high temperature Exos Oven** (800-OVEN-US), a **Thermal Extension Ring Kit** for larger sizes (800-ERK), **Heat Gun** for fine tuning and adjustments of brace, and Scissors to trim the Plantar Surface Pad. **The 7 Steps Fitting Guidelines Wall Chart** (00-2771) is an ideal, easy to follow reference for fitting.

● **What if my customer has an Exos Oven they've been using for Upper Extremity?**

There is a **new Oven Head which must be used for all Lower Extremity** products. The older Oven head is being phased out and the new Oven will be used for both Lower and Upper Extremity Exos. The new Oven head allows **the temperature to get up to 220°F which is required to heat the Exos Free Motion Ankle within 7 minutes**. The **new Oven Head can be ordered separately (800-EHE-US)** and is compatible with all other components of the older oven. Two extension rings will be necessary to heat all sizes of the Exos Free Motion Ankle.

● **When using a heat gun to make adjustments, what is the proper heat setting to use?**

Using a standard 120V heat gun with a low setting of 250°F is ideal to allow the brace material to become pliable in a short period of time for adjustments. Heat guns can be purchased on line for less than \$59.00 including this website: [http://www.uline.com/BL\\_2451/Industrial-Heat-Gun](http://www.uline.com/BL_2451/Industrial-Heat-Gun)

● **How do I know the Product size chosen is appropriate for a patient?**

Most patients will fit the shoe size identified for the Exos Free Motion Ankles. It's important to ensure the hinges line up properly with the joint of the ankle and the foot plate doesn't extend beyond the metatarsal heads. For patients with very Wide or Narrow feet and ankles, it's recommended the clinician measure the patients Stirrup length. They may need to size up or down as necessary.

- **How tight does the brace need to be for proper stabilization?**

Exos™ braces are meant to be worn under light pressure and not too tight to the skin. A little “wobble room” inside an Exos™ brace promotes air circulation and helps maintain dry healthy skin. An over-tightened brace can create “shear” or pressure on the skin during motion, and can result in irritation, rash, odor and skin issues.

- **Can Exos™ be reheated or reformed?**

The entire Exos™ Free Motion Ankle can be reheated up to five (5) times. If it's heated more than five times the inner foam may start to pull away from the plastic or not reform as quickly. Simple reshaping for a better fit or to relieve pressure points is easily accomplished by using a Heat Gun on the area that requires reforming. After the initial fitting, this is the fastest & recommended way to modify the brace.

- **How will the patient avoid skin issues?**

The brace should always be worn with a knee high sock. Wipe the brace (inside and out) with antimicrobial soap, rinse thoroughly and allow brace to completely dry (inside and out) prior to reapplication. It's recommended you clean your brace in the evening allowing it to completely dry overnight - so it's ready to wear the following day. A hair dryer on **COOL** setting may also be used to dry your brace.

- **If the brace needs to be reformed after a patient has worn it, should it be washed first? If so, can it be reheated wet or does it need to be dry first?**

The brace doesn't need to be washed prior to reheating, however it is recommended to wash the brace on a regular basis to maintain healthy skin and reduce odor and skin issues. The brace should be dry prior to reheating for proper application and forming.

- **Can Exos™ burn the skin during application?**

No, the foam inner layer effectively insulates the skin from the plastic middle layer of the laminate material. This foam serves two purposes: it insulates the skin from the warmer inner plastic layer and allows the plastic to retain heat longer so that it cools gradually and has the proper working time. Exos™ is dry and comfortable when applying to the patient. A full length sock is recommended to be worn at all times with the Exos™ Free Motion Ankle and one is provided with every brace.

- **Can you heat these braces in a microwave oven?**

Exos material is not designed to be heated in a microwave oven. It contains Aluminum and Stainless Steel, so it should not be placed in a Microwave oven.

## **Indications & When to use this product for best outcomes**

- **What are the primary indications for this product?**

The Exos™ Free Motion Ankle brace is indicated for **Posterior Tibial Tendon Dysfunction** or Adult Acquired Flatfoot; **Chronic Ankle instabilities** – including **Arthritis**, weak ankles due to ligament damage & overstressed ligaments, **High ankle sprains**; and **Post-operative rehabilitation**.

- **For what stages of PTTD would you recommend the use of the Exos™ Free Motion Ankle?**

The Exos™ Free Motion Ankle brace has been **designed to help patients at different stages of PTTD**. For Stage I and II (patients w/ flexible deformities), the brace is recommended as part of a conservative treatment to correct flexible deformities and the symptoms. For Stage III and IV (non-flexible patient) it's ideal to help prevent progression of PTTD. **Non-surgical patients are ideal candidates** for the Free Motion Ankle, and if surgery is the best option for the patient, the Free Motion Ankle can be applied during the **rehabilitation period to help facilitate the recovery from surgery**.

● **Can the Free Motion Ankle be used in combination with foot orthoses?**

Yes. The Exos™ Free Motion Ankle is an off-the-shelf, prefabricated, customizable solution for treatment of PTTD, Chronic Ankle Instabilities and Post-operative rehab, but it can also be used in combination with foot orthoses such as custom made orthotics, Hapads or posting, depending on the specific patient needs.

● **The Exos™ Free Motion Ankle and the AirLift have similar indications for use, when would a customer prescribe one vs. the other?**

- **The Exos™ Free Motion Ankle** is a **rigid, custom fit brace** to help **correct bony alignment or control chronic instabilities during rehab**. It has a durable full Exos™ shell and ¾ foot plate, elastomeric/free motion hinges for controlled plantar/dorsi-flexion and a BOA™ closure system. It's designed to be worn in a shoe and stay in a shoe and **ideal for long term use**.
- **The AirLift** is a **soft multiligamentous brace for soft tissue support**. A stirrup design, inflatable air cell below the foot arch and extended forefoot soft sleeve. **This may be best for short term use**.

● **Can the Exos™ Free Motion Ankle be used for sports activity?**

The Exos™ Free Motion Ankle is a thermoformed customizable ankle brace that incorporates a foot plate, elastomeric hinges and tibia/fibula cuff. The brace can be worn while participating in non-contact sports activities.

## Product Specifications

● **How much does the Exos Free Motion Ankle weigh?**

The weight varies by size but is: ½ lb to 1 lb. across all sizes

● **What is the difference between the lengths of the Foot plate between sizes?**

The foot plate increase 1/8" between XSmall and Small and ¼" between Medium, Large, & Xlarge

● **What type of hinge is on the Exos Free Motion Ankle & what are the benefits?**

The custom polycentric ankle hinge uses an **elastomeric polyurethane with a Kevlar strip which keeps hinge from elongating**, plus it has a better life cycle than other elastomeric hinges. The hinge is very forgiving allowing for natural motion and error for corrections, unlike single axis rivets.

● **How durable is the Exos Free Motion Ankle?**

The Exos Free Motion Ankle is constructed with durable materials to withstand daily use while wearing in a shoe. The entire brace uses patented low temperature plastic laminated to a soft foam liner. The **plastics used are high modulus thermoplastics that are 5x stronger than standard polypropylene used in many AFO's/Ankle Braces**. The **BOA system is tested to withstand 74 lbs of pressure and the cable is nylon coated steel**. The joints have aluminum bushings, stainless steel screws and black anodized steel. 5mm Neoprene Ankle shields coated with low friction TPU allow for maximum comfort. The brace comes with a 6 month warranty, however the product more than likely will last well over 12 months.

● **What are some of the other key benefits of product?**

- Vented tongue
- Patient friendly, Posterior entry
- Soft anti-microbial liner
- Open heel design makes interface with shoe easier

- **Is there natural rubber latex or other potentially allergic or skin sensitive materials?**

Exos™ products **are not made with natural rubber latex**. It is comprised of hypo-allergic materials. Individuals with unusual allergies should inform the clinician.

## Clinical Data

- **Do you have any clinical data to support your claims?**

Prior to launching the Free Motion Ankle, we conducted an internal clinical study to assess the efficacy of the product. **Fifty (50) patients were fitted with the Exos™ Free Motion Ankle to wear for a period of 8 weeks** prior to completing a questionnaire. Patient fit ranged from 10 to 93 years of age with various levels of activity and indications. Forty-Four (44) patients completed the questionnaire about their overall level of satisfaction with the brace. **88% said they would wear the Exos™ Free Motion Ankle over what they were currently using** (Custom Orthotic, AFO, Soft Off-the-Shelf brace). **61% indicated the brace had a positive effect on their activity and pain levels. 98% had no difficulty applying the brace.** We will conduct a more formal clinical study after the launch of the brace, but these first evidences are encouraging on the efficacy of the Exos™ Free Motion Ankle brace.

## Reimbursement & Pricing

- **How is reimbursement for the Exos™ Free Motion Ankle?**

The reimbursement for the Exos™ Free Motion Ankle brace is excellent with a **PDAC approved code of L1971**. Medicare reimbursement varies by state and ranges between **\$400 - \$532**.

- **Where do I find the PDAC letter DJO has on file for the Exos Free Motion Ankle?**

<http://www.djoglobal.com/corporate-info/compliance/coding>



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