

AFO (Ankle Foot Orthosis) - Plastic

General Description:

An AFO is a device that supports the ankle and foot area of the body and extends from below the knee down to and including the foot. This device is used to control instabilities in the lower limb by maintaining proper alignment and controlling motion. A plastic AFO is a custom fabricated, molded plastic device that encloses the back of the calf and bottom of the foot. It can be fabricated with or without ankle motion. It is worn inside a lace-up shoe.

A plastic AFO is generally used with patients suffering from neurological or orthopedic conditions. Examples of neurological conditions would be stroke, multiple sclerosis, and cerebral palsy. In these cases, the AFO functions by maintaining the affected joints in proper alignment to overcome weakness or muscle imbalance.

Examples of common orthopedic conditions would be fractures, severe sprains, and arthritis. Patients who have pain in the foot and ankle area due to trauma or other reason may benefit from an AFO because it immobilizes that part of the body, permitting it to heal, and reduces pain associated with movement.



Plastic AFO



Plastic AFO with Articulated Ankle

Application:

1. Apply cotton stockinette or long, thin cotton sock to the leg. (See Figure 1)
2. Loosen closure straps on the sides of the AFO.
3. Slide the AFO into position, ensuring that the heel is fully seated within the AFO. (See Figure 2) The heel needs to be back all the way and in contact with the bottom of the footplate. Check by looking along the sides and back where the plastic is separated above the heel. (See Figure 3)
*** Note: If putting an AFO on a child, first spread the plastic, which wraps around the top of the foot. (See Figure 4) Then approach the foot from behind and "scoop" the foot inside the AFO. In order to ensure that the heel is all the way inside the AFO, bend the knee and push the foot backwards and down by gently exerting pressure over the instep of the foot.



Figure 1



Figure 2



Figure 3



Figure 4

4. Apply the tension straps and pull to make snug. (See Figure 5) A mark can be made at the end of the strap to keep tension consistent between applications.
5. The foot with the AFO is then slid into a shoe. The shoelaces may need to be opened wide in order to get the AFO easily into the shoe. (See Figure 6)
6. You do not need a special shoe to wear over the brace, but a larger shoe size may be needed. If necessary, remove the insole of the shoe to accommodate the AFO. (See

Figure 7) Shoes with wide toe boxes and Velcro closures are generally easier to put on over braces.



Figure 5



Figure 6



Figure 7



Figure 8

Wearing Schedule:

On the first day you receive the brace, begin by wearing for only 1 hour. After 1 hour, remove the brace and check your skin for red marks. Some small, light red marks may be noticed on the skin that should go away in 20 to 30 minutes after removing the brace. Slight redness is common over the instep and under the ball of the foot. If the red marks do not go away in 20 to 30 minutes or if you notice any scratching, bruising, or blistering, **do not put the brace back on**. Call immediately to schedule an appointment with your orthotist.

If the skin is ok, wait at least 1 hour and then put the brace back on for 1 hour at a time for the rest of the first day, checking the skin after each hour.

On the second day, put the brace on for 2 hours. After 2 hours, remove the brace and check the skin. If the skin is ok, put the brace back on for 2 hours at a time for the rest of the day, checking the skin after every 2 hours. If your skin is ok, gradually increase wearing time by 1 hour each day, checking the skin after each wearing time.

Cleaning and Maintenance:

The best way to clean an AFO is to spray the inside with rubbing alcohol and wipe dry to remove body oils and residue. The AFO can also be cleaned by wiping it out with a damp towel and anti-bacterial soap or anti-bacterial, moist towelettes. Wash the cotton stockinette in cold water and air dry or machine dry on low. Do not immerse the AFO in water, as this will harm the instep strap and metal fasteners. Keep the brace away from excessive heat to prevent damage to the plastic. Try to keep the Velcro straps free of hair and lint. If the straps wear out and need to be replaced, please contact your orthotist.

Tips and Problem Solving:

When putting an AFO on a child's foot, it is very important to make sure the heel is properly seated inside the orthosis.

Be cautious about using the AFO in different shoes. Changing the heel height of the shoe can affect the function and stability of the AFO.

If you notice red marks, bruises, or blisters on your skin, discontinue wearing the brace and call your orthotist to schedule an appointment.

If there are any problems, please consult your orthotist.