Orthotic Care and Wear Instructions

Floor (Ground) Reaction AFO

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 floor (ground) reaction AFO (FRAFO or GRAFO) is a custom fabricated, molded plastic device.

There are several designs of FRAFO’s:
1. One piece: encloses the back of the lower calf, the shin, and bottom of the foot
2. Two piece: same as the one piece but has a removable anterior (front) panel
3. Rear-opening: encloses the front of the leg and top of the foot. May be articulated.

A floor reaction AFO is generally used with patients affected by neurological conditions such as spina bifida, cerebral palsy, brain injury, spinal cord injury, and post-polio paralysis. In these cases, the floor reaction AFO functions to maintain the affected joints in proper alignment, to accentuate knee extension at midstance, and compensate for weak or absent gastroc-soleus (calf) muscles. A floor reaction AFO places the extension force closer to the knee than other AFO’s and uses a rigid anterior shell with padding.

Application:
1. Apply long cotton sock or stockinette to leg
2. If the floor reaction AFO has a detachable anterior panel, loosen the straps on the side of the panel
3. To slide the foot and leg into the FRAFO, plantarflex the ankle (point the toes down) through the top of the orthosis.
4. Make sure the heel is fully seated. The heel needs to be all the way back and in contact with the bottom of the footplate.
5. Check to ensure the heel is all the way back by looking along the sides and back where the plastic is separated above the heel.
6. If applicable, apply the anterior panel and tighten straps snugly. The Orthotist may mark the straps to assist you in keeping consistent pressure between applications.
7. Secure the Velcro of the wrap around strap just above the ankle.
8. The shoelaces need to be opened wide, then slide the foot with the FRAFO into the shoe.
9. Special shoes are not needed to wear over the orthosis, but a larger shoe size may be indicated. If necessary, remove the insole of the shoe to accommodate the FRAFO. Shoes with wide toe
boxed and Velcro are generally easier to put on over the orthosis. Tighten shoelaces/Velcro securely.

**Wearing Schedule:**

**Day One:** Brace should be worn for 1 to 2 hours twice a day. Check skin after use. Some small, light red marks may be noticed on the skin that should go away in 20 to 30 minutes after removing the brace. If redness is present and does not go away after 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.

**Day Two:** Brace should be worn for 2 to 3 hours twice a day. Check skin after use. Some small, light red marks may be noticed on the skin that should go away in 20 to 30 minutes after removing the brace. If redness is present and does not go away after 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.

**Day Three:** Brace should be worn for 3 to 4 hours twice a day. Check skin after use. Some small, light red marks may be noticed on the skin that should go away in 20 to 30 minutes after removing the brace. If redness is present and does not go away after 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.

**Risks and Benefits:**

**BENEFITS**

- Maintains the affected joints in proper alignment, to accentuate knee extension at midstance, and compensate for weak or absent gastroc-soleus (calf) muscles

**RISKS**

- May cause skin breakdown such as scratching, bruising, or blistering, which can cause serious complications if skin is not checked regularly or if device is not applied as directed.

**Tips and Problem Solving:**

When putting on any AFO, it is very important to make sure the heel is properly seated inside the orthosis.

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

If you notice red marks, bruises, or blisters on your skin, discontinue use and call your orthotist to schedule an appointment.
If there are any problems or concerns, please consult your orthotist.