

# Leg Brace

AIRCAST<sup>®</sup>  
LLC

(03A, 03B, 03C, 03D)

The Aircast<sup>®</sup> Leg Brace is designed to “stabilize the fracture site and transfer the weight-bearing load to the soft tissues of (the) lower leg”<sup>10</sup> to allow functional management of lower leg stress fractures and stable fractures.

## The Leg Brace features:

- Patented Duplex™ aircell design that enhances circulation and reduces swelling.<sup>7,9</sup>
- Transfer of weight-bearing load to reduce the causative forces of injury.<sup>2,10,11</sup>
- Anatomically designed semi-rigid shells to stabilize and protect the leg.<sup>1,10,11</sup>
- Easy fit in shoes to encourage the benefits of early protected weight-bearing.<sup>4,5</sup>

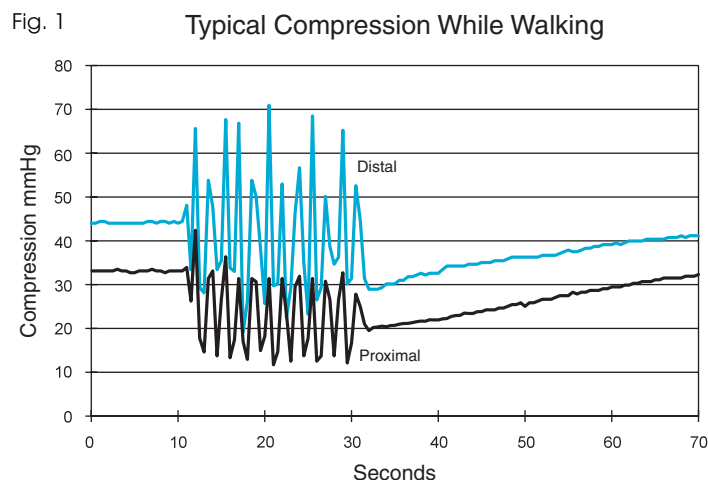
## OPERATION

The brace is applied with a sneaker or lace shoe (*see instructions for brace application*). With every step, the patented Duplex aircells that line the brace provide gentle pulsating, graduated compression (Fig. 1). This soothing, gap-free compression enhances circulation and helps reduce swelling. The semi-rigid shell provides support and protection, to stabilize and protect the leg. An optional aircell-lined Anterior Panel is available for additional tibial protection.



## CLINICAL EXPERIENCE

When the Leg Brace was used in a randomized prospective study to treat tibial stress fractures, it allowed athletes to “return to full, unrestricted, pain-free activity significantly sooner than traditional treatment.”<sup>10</sup> It has been found that the Leg Brace “unloads the tibia and fibula by stabilizing the surrounding musculature... (and) not only increases the rate of healing stress fractures but also decreases the causative forces of stress fractures.”<sup>11</sup> The dynamic compression provided by the Duplex aircells enhances fracture healing,<sup>1,10,11</sup> and also decreases swelling.<sup>3,6,7,8</sup>



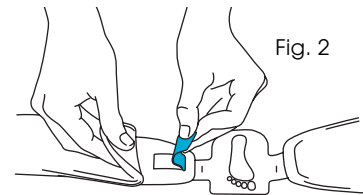
This graph illustrates the graduated pulsating compression that occurs when a patient is walking.

# Leg Brace (03A, 03B, 03C, 03D)

## Instructions:

### 1 Adjust heelpad width

- Open brace and lift bottom of aircells until heel straps are fully exposed.
- Peel up heel straps and adjust heelpad width for a snug fit (Fig. 2).
- Firmly press heel straps and aircells back in place.



### 2 Apply brace

- Put on sock.
- Place round edge of heelpad under heel.
- Align brace sides with leg.
- Secure bottom strap (Fig. 3).

If Anterior Panel is included:

- Slide tip of panel under bottom strap and panel edges under brace sides (Fig. 4).

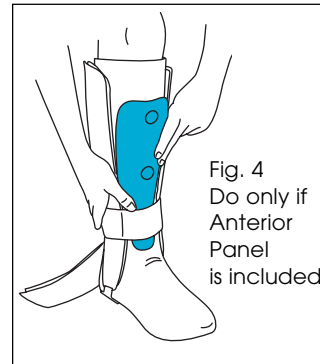


Fig. 4  
Do only if  
Anterior  
Panel  
is included

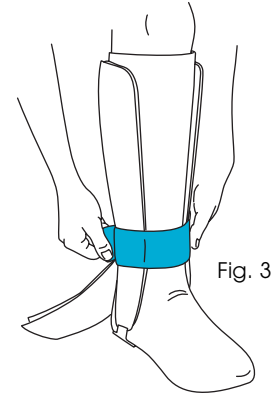


Fig. 3

### 3 Secure straps

- Secure remaining straps from bottom to top (Fig. 5).
- Put on lace shoe or sneaker

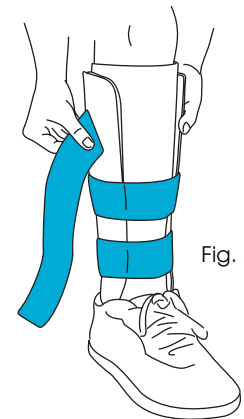


Fig. 5

### 4 Adjust brace

- Squeeze brace sides together with one hand.
- Tighten straps from bottom to top with other hand.
- Tighten for comfortable support.



## CAUTION

Like all lower extremity devices, such as casts or braces, patients without sensation (i.e. post-op anesthesia, neuropathies, etc.) should be monitored frequently for “hot spots”, skin irritation or wound management.

Always wear an absorbent sock when using the Leg Brace.

#### LEG BRACE FIT ADJUSTMENT

**Leg Brace aircells are preinflated and normally do not require adjustment.**

If you experience pinching or uneven pressure:

- Reposition brace or
- Readjust heelpad and straps. Use lines on heelpad as a reference.

If condition persists, adjust aircell volume (**too much air will reduce support**):

- Unfold valve on top of aircell.
- Insert the inflation tube into valve 1½".
- Remove a **small amount** of air by gently squeezing aircell or
- Add a **small amount** of air by blowing into tube.
- Squeeze valve flat just below air tube, and slowly remove tube.
- Fold valve.

#### REFERENCES

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US PATENTS: 4,280,489 4,287,920 4,628,945 5,125,400 5,492,133 AND OTHER PATENTS PENDING

#### HIGH ALTITUDE

At high altitudes the aircells will expand beyond their optimal level, and air will have to be removed from the aircells (see *Leg Brace Fit Adjustment*). When flying, readjust the straps to a comfortable pressure.

#### LATEX

All Aircast products are latex-free.

#### CARE

The entire Leg Brace can be hand washed in lukewarm water with mild soap and air dried.

#### WARRANTY POLICY

**Satisfaction**—Aircast will provide prompt refund for any product that does not satisfy the physician for any reason whatsoever.

**Durability**—Aircast Leg Braces are designed to last for as long as required by the original patient. Aircast may, at its discretion, furnish replacement parts during this time, provided the defective part is returned to Aircast for analysis.

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