

# Aircast® Sport-Stirrup® prophylactic brace

The Air-Stirrup® ankle brace "revolutionized the management of ankle injuries". The Sport-Stirrup may help prevent them.\*

The Sport-Stirrup retains the unique support and conformability of the traditional Air-Stirrup. Designed for the healthy un-swollen ankle, it is narrower within the shoe (Fig. 1)—less bulk but equivalent support.

**Inversion:** A recent study (using a Biodex dynamometer) shows that after exercise the Sport-Stirrup was as effective as professionally applied tape in resisting inversion, and more effective than a lace-up brace† (Fig. 3).

Earlier studies have demonstrated the effectiveness of the wider Standard and Training model Air-Stirrups:

*"The results suggest that a semi-rigid orthosis similar to the one tested in this study (Air-Stirrup Trainer) may be more effective in preventing ankle sprain injuries than tape²."*

*"The results indicate the range of inversion in ankles braced with the Air-Stirrup (Trainer) was significantly less than in un-braced ankles³."*

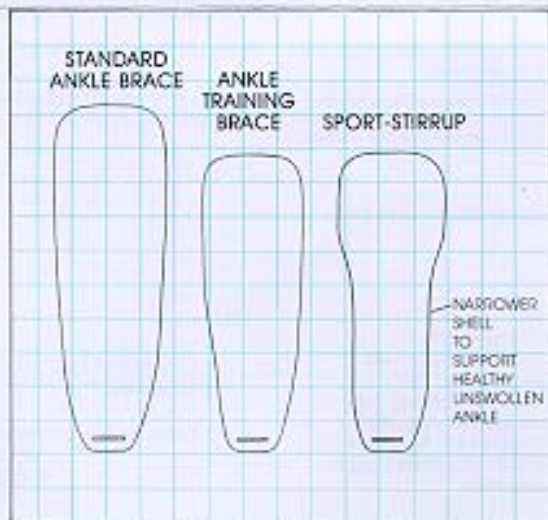
*"The data confirmed the Aircast Brace (Standard) has a stabilizing effect on the ankle⁴."*

*"The semi-rigid orthosis used in this study (Trainer) appeared to accomplish the goals of a successful prophylactic: moderate ankle joint motion within the normal bounds of the joint action⁵."*

**Agility studies show:** The results indicate the Sport-Stirrup may have less detrimental effect on athletic performance than the accepted method of ankle support (taping)⁶.\*

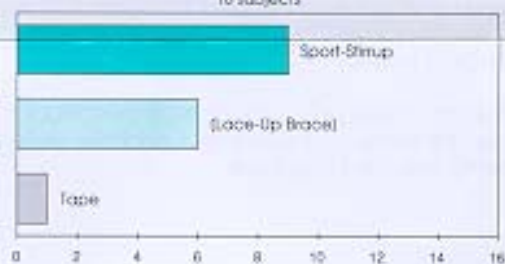
**Comfort and ease-of-application** are also important. In their study Gross et al.⁷ report, "The ratings for the most comfortable support system were: Sport-Stirrup = 9, (Lace-Up Brace) = 6, and Tape = 1 (Fig. 2)." And they noted: "Most individuals using an ankle support system do not have the expertise needed to self-apply this study's Tape system. The Sport Stirrup system was rated the most comfortable, and an individual is less likely to wear an uncomfortable support system".

\*Scientific verification of prevention is a lengthy process. However experience with the Air-Stirrup in preventing re-injury is extensive. And a major prospective study with the Sport-Stirrup is underway and will be reported when published.

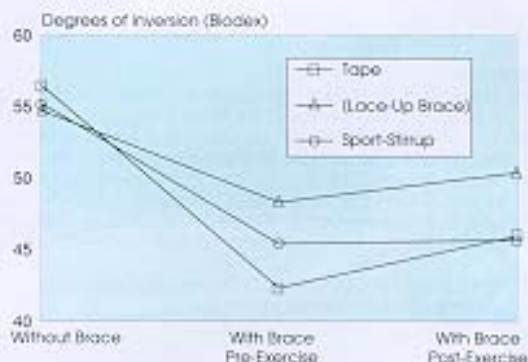


**Comfort:**  
Fig 2

**Rated Most Comfortable**  
16 subjects



**Inversion:**  
Fig 3



# Sport-Stirrup® (02D) 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. 4).
- Firmly press heel straps and aircells back in place.

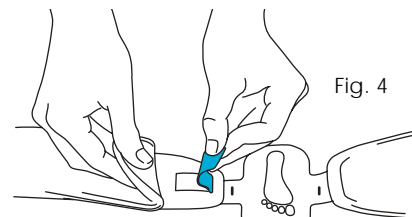


Fig. 4

## 2 Apply brace

- Put on absorbent sock or ankle wrap.
- Place round edge of heelpad under heel.
- Align brace sides with ankle (Fig. 5).

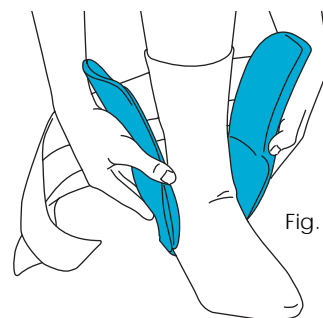


Fig. 5

## 3 Secure straps

- Secure straps from bottom to top.
- Put on lace shoe or sneaker.

## 4 Adjust brace

- Squeeze brace sides together with one hand.
- Tighten straps from bottom to top with other hand (Fig. 6).
- Tighten for comfortable support.

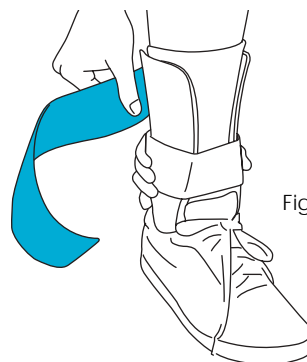


Fig. 6

### CAUTION

Always wear an absorbent sock when using the Sport-Stirrup.

#### SPORT-STIRRUP FIT ADJUSTMENT

Sport-Stirrup 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 inflation tube into valve 1½ inches.
- 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 tube, and slowly remove tube.
- Fold valve.

#### REFERENCES

1. Bergfeld J, et al: Symposium: Management of Acute Ankle Sprains. *Contemp Othop* 13:83–116, 1986
2. Gross M, et al: Comp. of Support by Ankle Taping and Semirigid Orthosis. *J Orth Sport Phys Ther* 9:33–39, 1987
3. Kimura I, et al: Effect of AirStirrup in Controlling Ankle Inv. Stress. *J Orthop Sports Phys Ther* 9:190–193, 1987
4. Stuessi E, et al: Biomech. Study of Stabilization Effect of Aircast Ankle Brace. *Int Series on Biomech* 6A:159–164, 1987
5. Hamill J, et al: Exer. Mod of Foot Func. Walking with Semi-Rigid Ankle Orthosis. *Clin Biomech* 3:153–158, 1988
6. Coffman J, et al: A Comp. of Ankle Taping and the Aircast Sport Stirrup on Athletic Perf. *Ath Train* 24:123, 1989
7. Gross M, et al: Comparison of Swede-O-Universal Ankle Support and Aircast Sport-Stirrup Orthoses and Ankle Tape in Restricting Eversion-Inversion Before and After Exercise. *J Orth Sport Phys Ther* 13:11–19, 1991

Additional references available at [www.aircast.com](http://www.aircast.com)

US PATENTS: 4,280,489 4,287,920 4,628,945 5,125,400 5,492,133 AND OTHER U.S. AND FOREIGN 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 *Sport-Stirrup Fit Adjustment*). When flying, re-adjust the straps to a comfortable pressure.

#### LATEX

All Aircast products are latex-free.

#### CARE

The entire Sport-Stirrup 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 Sport-Stirrups 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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