Internal Brace™
Ligament Augmentation Repair
Spring Ligament

Simple and Reproducible

- Corrects talar misalignment
- Restores the natural medial “hammock” between the talus and the navicular
- Can be used in association with FDL transfer with no additional dissection
- Potentially decreases the need for corrective bony procedures

Collagen-Coated FiberTape® suture in the AR-1688-CP kit

Internal Brace Ligament Augmentation Repair Kit
With Collagen-Coated FiberTape® Suture (AR-1688-CP) includes:

- BioComposite SwiveLock™ anchor w/ #2 Collagen-Coated FiberTape suture, 3.5 mm
- BioComposite SwiveLock anchor, 4.75 mm
- Guidewire w/ Trocar Tip, 1.35 mm
- Drill Bit, cannulated, 2.7 mm
- Drill Bit, 2.7 mm
- Punch/Tap for 3.5 mm SwiveLock anchor
- Drill Bit, 3.4 mm
- Punch/Tap for 4.75 mm SwiveLock anchor
- Drill Guide
- Two Free Needles
- Suture Passing Wire
**Internal/Brace™ Ligament Augmentation Repair**

**Spring Ligament Technique Review**

The spring (calcaneonavicular) ligament complex is the static support most often observed to fail with flatfoot deformity. Successful anatomic repair of the spring ligament has been inconsistent and therefore augmentation reconstruction has been recommended. Most current reconstructive procedures do not proactively address the primary factor leading to talar misalignment. We describe a simple reconstruction of the static medial ankle ligament complex. This procedure includes a primary anatomic repair of the native spring ligament, which is then protected from elongation by an "internal" augmentation of the superomedial and plantar ligament bands.

1. Insert a 1.35 mm K-wire into the sustentaculum tali angled 15° plantarly and slightly posterior to avoid the subtalar joint. Verify position prior to overdrilling with a 2.7 mm cannulated drill. Use the 3.5 mm tap (black handle) and tap to laser line. Insert a 3.5 mm SwiveLock® anchor (black handle) loaded with FiberTape® suture. Hold the paddle and turn the handle clockwise until the black line is slightly countersunk.

2. If performing in association with an FDL transfer, the navicular should be reamed to the appropriate size. This is commonly 5.0 mm or 5.5 mm. If performing an isolated spring ligament augmentation, drill with the 3.4 mm drill and tap through the navicular with the 4.75 mm tap.

3. Take one limb of the FiberTape suture and pass it dorsal to plantar and the other limb plantar to dorsal (in conjunction with the FDL, if you are transferring). This is referred to as a "hammock effect" to make the force of the FiberTape suture equal in strength on the navicular. Ensure concentric reduction of the talonavicular joint on coronal and sagittal imaging.

4. Hold one limb of the FiberTape suture under tension from dorsal to plantar and the second limb of the FiberTape suture (in conjunction with FDL if you are transferring) under tension from plantar to dorsal while inserting the 4.75 mm SwiveLock (green handle) anchor. This anchor is being used as an interference screw. **Note:** It is suggested to remove the eyelet of the 4.75 mm SwiveLock anchor.

5. Cut the remaining tails of the FiberTape suture and extra limb of the FDL (and/or FiberLoop® suture from the whipstitch of the tendon).

**Post-op Recovery**

Flatfoot reconstruction with spring ligament Internal Brace augmentation repair post-op is determined by other bony procedure healing and thus does not alter traditional postoperative recovery protocols for flatfoot reconstruction. With isolated spring ligament anatomic tissue repair and Internal Brace augmentation:

- 2 weeks non-weightbearing
- 6 weeks weightbearing boot
- PT avoids passive eversion
- Improvement may continue for 6 months to a year

**Reference**


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This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product’s Directions For Use. Postoperative management is patient specific and dependent on the treating professional’s assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.