InternalBrace™
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

NEW!
Collagen Coated FiberTape® in Kit AR-1688-CP

InternalBrace Ligament Augmentation Repair Kit (AR-1678-CP) includes:
BioComposite SwiveLock w/#2 TigerTape, 3.5 mm
BioComposite SwiveLock, 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
Drill Bit, 3.4 mm
Punch/Tap for 4.75 mm SwiveLock
Drill Guide
Two Free Needles
Suture Passing Wire

InternalBrace Ligament Augmentation Repair Kit w/ Collagen Coated FiberTape (AR-1688-CP) includes:
BioComposite SwiveLock w/#2 Collagen Coated FiberTape, 3.5 mm
BioComposite SwiveLock, 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
Drill Bit, 3.4 mm
Punch/Tap for 4.75 mm SwiveLock
Drill Guide
Two Free Needles
Suture Passing Wire
InternalBrace™ 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. Several of these techniques compromise the peroneus longus tendon, which may play an important role in restoring the tripod effect in flatfoot deformity. Other techniques require complex tunnels and/or tendon weaving. 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 brace” augmentation of the superomedial and plantar ligament bands.

1. Insert 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® (black handle) loaded with FiberTape®. Hold the paddle and turn the handle clockwise until the black line is slightly countersunk.

2. Overdrill the navicular with a 5.0 or 5.5 tenodesis reamer if an FDL transfer is taking place. If 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 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 equal in strength on the navicular. Assure concentric reduction of talonavicular joint on coronal and sagittal imaging.

4. Hold one limb of the FiberTape under tension from dorsal to plantar and the second limb of the FiberTape (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.

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

Post-Op Recovery
Flatfoot reconstruction with spring ligament InternalBrace augmentation repair post-op is determined by other bony procedure healing and thus does not alter traditional postoperative recovery protocols for flatfoot reconstruction. Isolated spring ligament anatomic tissue repair and InternalBrace augmentation:

- Two weeks non-weight-bearing
- Six weeks weight-bearing boot
- PT avoid passive eversion
- Improvement may continue up to six months to a year

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