A direct midline incision is made posteriorly with the patient in the prone position. The incision is carried down to the calcaneus and calcaneal tendon insertion. The Achilles tendon is split at the line incision, full thickness, from posterior to anterior and is debrided removing all tendinopathic tissue.

The Achilles tendon is released distally, and reflected medially and laterally, exposing the whole calcaneal tuberosity with a Haglund’s prominence. Care is taken to maintain some medial and lateral attachments to assist with the accurate restoration of the Achilles’ length. In some cases, complete tendon debridement may require complete tendon detachment.

The Haglund’s prominence is removed using a micro-sagittal saw and osteotome. Care is taken to chamfer off the medial and lateral sides of the calcaneus so as not to leave a prominence that is palpable under the skin, creating difficulties with footwear.

Prepare the bone for insertion of the two 4.75 mm BioComposite SwiveLocks® by drilling down to the laser line or to the shoulder stop when using the drill guide. Two holes are created about 1 cm proximal to the distal insertion of the Achilles tendon and central to each half of the tendon.

The punch/tap included in the disposable pack is used to prepare the holes for the SwiveLocks.
The two 4.75 mm BioComposite SwiveLocks loaded with FiberTape, one blue and one white/black, are inserted in the proximal holes. The eyelet should be placed completely in the drill hole until the anchor body makes contact with the bone. Hold the thumbpad steady and rotate the driver handle in a clockwise direction until the anchor body is flush with the bone.

Note: To remove the driver, unwind the #2 FiberWire® tip retention suture that holds the PEEK tip in place during anchor insertion. This suture may be incorporated into the repair or discarded.

Pass the needle attached to the FiberTape through the Achilles tendon on each side.

Prepare the distal holes with the provided drill in the same manner as the proximal holes.

Punch/tap the distal holes in preparation for the SwiveLocks.
After cutting the swedged portion on each proximal anchor, retrieve one FiberTape tail from each proximal anchor (one blue and one white/black) and preload them through the distal SwiveLock C eyelet. Adjust tension of the FiberTape and insert the BioComposite SwiveLock C into the prepared distal bone socket until the anchor body contacts bone. Do not attempt to adjust tension while the eyelet is in the hole. Make sure the anchor is flush to the bone prior to removing the handle.

Post-op Protocol

Postoperatively, patients are treated with a below-the-knee walking boot with or without a heel lift, depending on surgeon preference—allowing them to weight-bear. The SpeedBridge construct can provide excellent security, and avoiding the lift helps maximize flexibility and may enhance rehabilitation.

The patient should be protected with crutches for approximately four weeks, at which point physical therapy and range-of-motion is begun. Gradually wean your patients from the walking boot.

Note: Two #2 FiberWire sutures may be used to provide additional fixation to the distal tendon.
Insertional calcific Achilles tendinosis is a painful and frequently disabling condition. While most patients with insertional Achilles tendinosis can be managed nonoperatively, those patients who do not respond to conservative treatment may require decompression and debridement of the diseased tendon. This technique describes numerous operative approaches for reattachment of the Achilles tendon and for an associated tendon transfer of the flexor hallucis longus (FHL) for augmentation. While Arthrex provides means of fixation for both, the reattachment of the tendon is the focus of this technique guide.

The SpeedBridge is a novel concept in Achilles reattachment, following debridement. While standard anchor fixation of the tendon creates only a single point of compression directly over the anchor, the SpeedBridge enables an hourglass pattern of FiberTape® suture to be laid over the distal end of the tendon. This four-anchor construct enables a true knotless repair and a greater area of compression for the Achilles tendon on the calcaneus, improving stability and possibly allowing for earlier return to normal activities.

Pull-out Strength Comparison

<table>
<thead>
<tr>
<th>Material</th>
<th>Pull-out Strength (lbf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.75 mm Bio-SwiveLock C w/FiberTape</td>
<td>56.9</td>
</tr>
<tr>
<td>Mitek Versalok™</td>
<td>34.1</td>
</tr>
<tr>
<td>ArthroCare SpeedScrew™</td>
<td>30.6</td>
</tr>
<tr>
<td>ArthroCare Opus Magnum™</td>
<td>27.5</td>
</tr>
<tr>
<td>4.5 mm Linvatec PopLok™</td>
<td>21.6</td>
</tr>
<tr>
<td>Smith &amp; Nephew Footprint PK™</td>
<td>19.3</td>
</tr>
</tbody>
</table>
Ordering Information

Achilles SpeedBridge Convenience Pack (AR-8928BC-CP) includes:
- BioComposite SwiveLock Anchor, 4.75 x 15 mm, qty. 2
- BioComposite SwiveLock Anchor w/FiberTape Needle Assembly, blue*
- BioComposite SwiveLock Anchor w/FiberTape Needle Assembly, white/black*
- Drill, 3.5 mm
- Drill Guide
- Punch/Tap for 4.75 mm SwiveLock

PEEK Achilles SpeedBridge Convenience Pack (AR-8928P-CP) includes:
- PEEK SwiveLock Anchor, 4.75 x 15 mm, qty. 2
- PEEK SwiveLock Anchor w/FiberTape Needle Assembly, blue
- PEEK SwiveLock Anchor w/FiberTape Needle Assembly, white/black
- Drill, 3.5 mm
- Drill Guide
- Punch/Tap for 4.75 mm SwiveLock

Accessories (optional)
- Bio-Corkscrew FT Punch, reusable AR-1927PB
- Punch / Tap for Bio-Corkscrew FT AR-1927CTB
- PushLock Punch, 3.5 mm AR-1928P

*use with BioComposite SwiveLock Screwdriver

This technique was developed in conjunction with Thomas San Giovanni, M.D.

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.