



OPUS® Foot and Ankle Applications

Achilles Tendon Repair

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Technique Guide

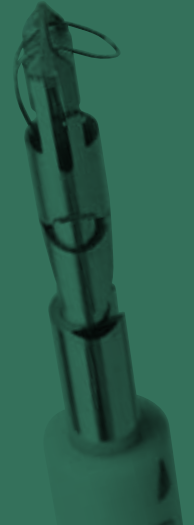
Achilles Tendon Repair Technique

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Achilles tendon repair is performed on males in the age range of 40–55 approximately 60% more frequently than the equivalent female population. Many techniques have been proposed and advocated over the last 40 years.

Typical recovery can take upwards of 12 months and require extensive post surgical rehabilitation.

One of the difficulties encountered with Achilles tendon repair is the loss of tissue. The surgeon is faced with closing a gap from 1cm to 6cm. The ultimate goal is to have a functional posterior muscle group with appropriate push-off during gait when healed while ensuring that the foot and tendon remain in a functional position to prevent an equinus or calcaneus type gait deformity.



Patient Preparation

The patient is placed in a supine position with pillows placed under the ankles and shin, and the knee slightly bent. Use gel or eggcrate to prevent any excessive pressure points. Allow the foot and ankle to be in a neutral dorsiflexed position.

Technique

Step 1 A posterior approach is advocated from the musculotendinous junction to the midsubstance of the posterior calcaneus. Maintain a full thickness incision down to the tendon (*Figure 1*).

Once the tendon is exposed, use appropriate dissection to preserve the paratenon, if possible.

Once the paratenon is retracted, then debride and prepare the tendon margins to healthy tissue. Flush the blood and debris from the site (*Figure 2*).

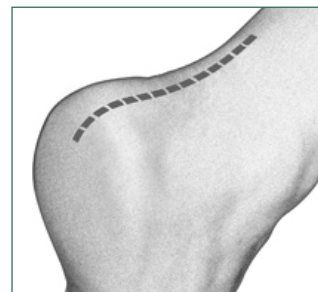


Figure 1



Figure 2

Step 2 Once the repair site is prepped, use the SmartStitch® suturing device or free stitch to place the suture in the proximal medial musculotendinous junction, with the free suture directed distally. Repeat this stitch on the lateral aspect of the musculotendinous junction (*Figure 3*).



Figure 3

Technique (Continued)

Step 3 Prepare the calcaneus for insertion of the OPUS implants by drilling one hole into the posterior medial calcaneus and the second on the posterior lateral aspect of the calcaneus (Figure 4).

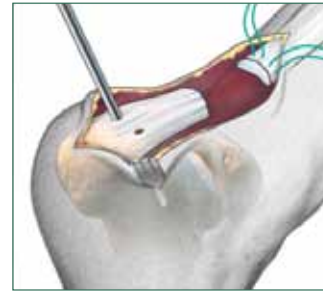


Figure 4

Step 4 After placing both implants, use the tensioning mechanism to tighten the suture. You will note that the proximal tendon moves distally, filling the gap that has been created. Slowly continue tightening until you have opposition of the proximal and distal tendon ends (Figures 5,6,7).



Figure 5



Figure 6



Figure 7

Step 5 Use the remaining suture to place a Krackow stitch up the medial and lateral aspects of the distal achilles tendon.

With a free needle and MagnumWire®, place a Krackow stitch from proximal to distal on the medial and lateral aspects of the proximal tendon (Figure 8).

Once completed, tie distal and proximal sutures together at the tendon interface on the medial and lateral aspects.

Note: Insure while tightening suture and advancing the proximal segment that the foot and ankle are in a neutral dorsiflexed position.

At this point, using Topaz® radiofrequency Coblation® on the tendon can be beneficial provided that contact with the suture is avoided.



Figure 8

Post-Operative Course

Layered closure, compression dressing, posterior splint, and non-weight bearing 3-4 weeks, then protected weight bearing 4-6 additional weeks, or as it is deemed necessary by the surgeon.

Order physical therapy as necessary for rehabilitation.



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