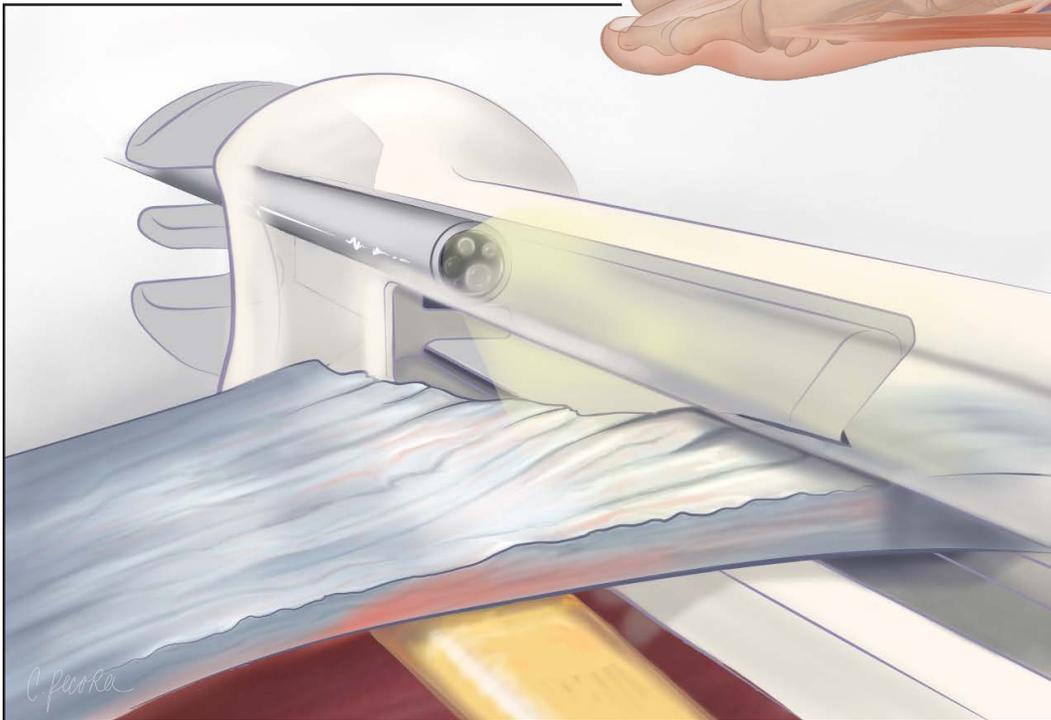
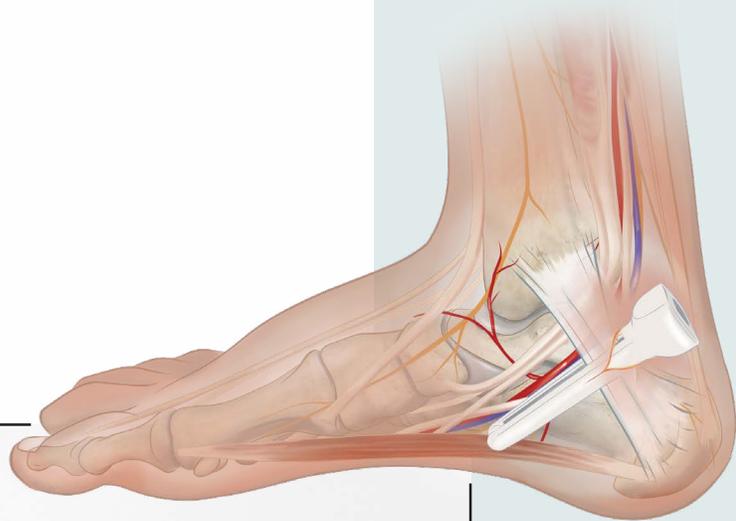


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Tarsal Clip



Surgical technique guide

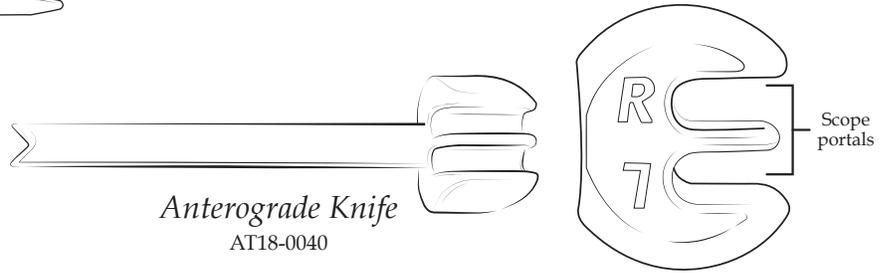
Endoscopic tarsal tunnel release

Instrumentation

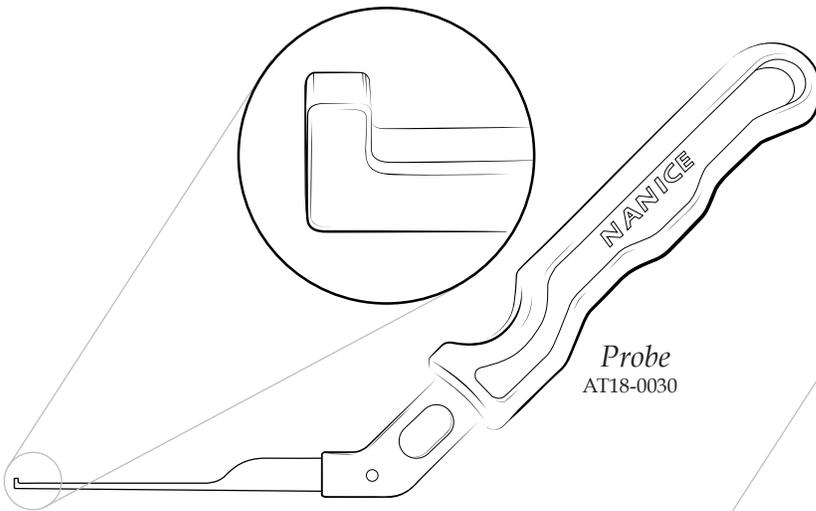
AT18-0000



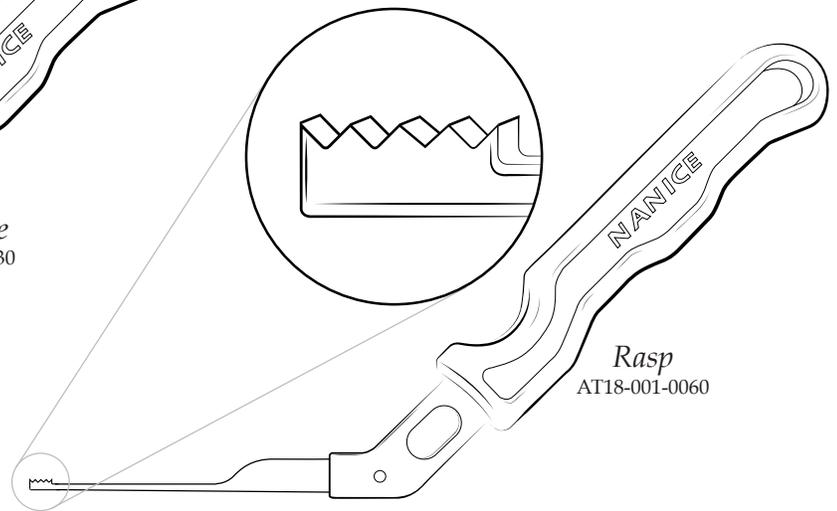
Dilator
AT18-0010



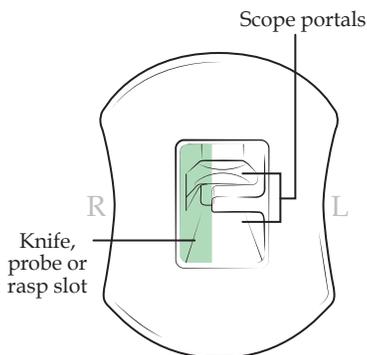
Anterograde Knife
AT18-0040



Probe
AT18-0030



Rasp
AT18-001-0060

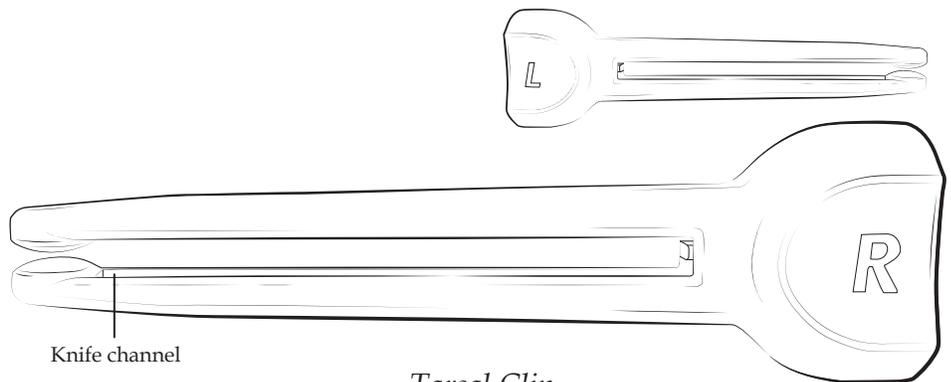


Knife,
probe or
rasp slot

Scope portals

R

L



Knife channel

Tarsal Clip
AT18-0020

Preoperative Considerations

The incision can be made parallel to the flexor retinaculum at the surgeon's discretion. This may allow easier translation of the Tarsal Clip should the medial calcaneal nerve be encountered, this does however make it more difficult to convert to an open tarsal tunnel release if necessary. It is recommended to release the tourniquet prior to closure to ensure no excessive bleeding is present.

Surgical technique

Marking of relevant anatomy

Outline the medial malleolus and the calcaneal tuberosity. Mark a point midway between the two, this will represent the site of the incision. Palpate the porta pedis just distal to the calcaneal tuberosity, mark a spot at this location for accuracy of fascial cut. Mark a spot just anterior to the Achilles tendon in line with the previous two marks, this will be the proximal extend of the fascial cut.



Figure 1

Incision

Make a 1.5 cm horizontal incision midway between the distal aspect of the medial malleolus and the calcaneal tuberosity. Use blunt dissection to clear overlying subcutaneous tissue until the flexor retinaculum is visualized. Carefully incise the flexor retinaculum until the underlying tarsal tunnel is entered.

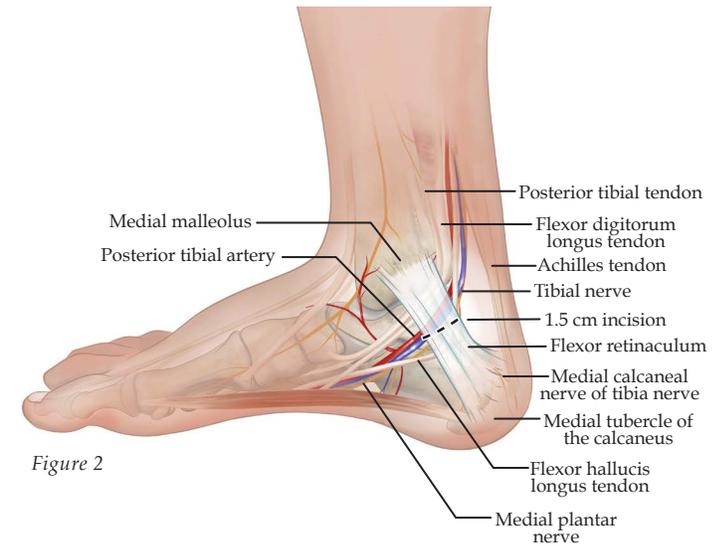


Figure 2

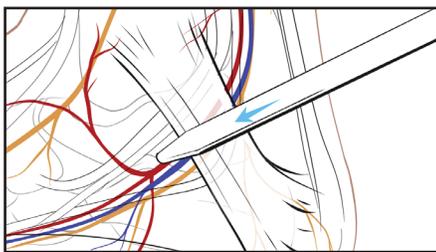


Figure 3a

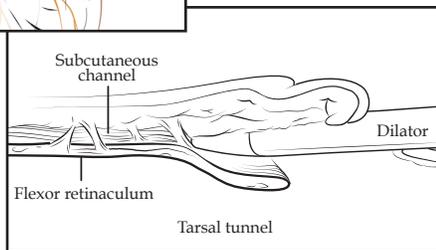


Figure 3b- Lateral view in subcutaneous channel

Dilation

Use the provided dilator to free the subcutaneous tissue superficial to the flexor retinaculum starting with the small end of the dilator, and then using the larger end of the dilator. Perform the same process deep to the flexor retinaculum. Dilation should be performed distally towards the marked-out porta pedis and proximally towards the Achilles tendon. It is important to create a subcutaneous channel that runs along the tarsal tunnel to prevent divergence of the Tarsal Clip arms. This will allow for easy insertion of the Tarsal Clip and for smooth gliding of the blade within the clip.

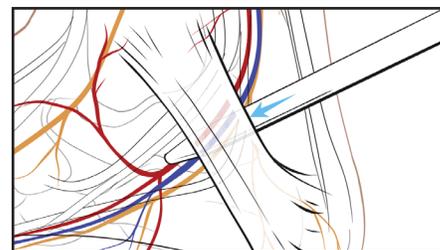


Figure 3c

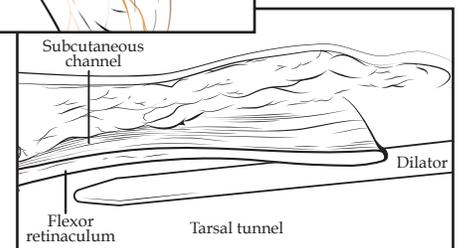
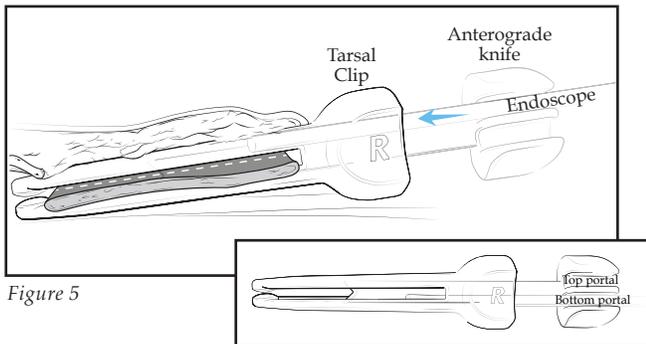


Figure 3d - Lateral view below fascia line

Placement of Tarsal Clip

Grasp the visible edge of the distal portion of the flexor retinaculum with forceps and guide the Tarsal Clip over the retinaculum so that one arm of the Tarsal Clip is superficial to, and one arm deep to the flexor retinaculum. Place the device such that the appropriate letter is upright on the device (i.e. the "R" is facing up for a right tarsal tunnel release). With the Tarsal Clip in place, insert a 4 mm or smaller scope in both portals to view both the undersurface and the surface of the flexor retinaculum, deep fascia of the leg, or the abductor fascia depending on anatomic location. Examine both sides of the fascia to ensure no neurovascular structures or muscle fibers are present in the path of the V-shaped blade. Perform the same process to the proximal end of the incision.



Transection

Place the V-shaped blade over the scope such that the knife blade is aligned with the knife slot on the Tarsal Clip guide. Proceed to slide the V-shaped blade distally until transection is complete into the porta pedis. (Note, the Tarsal Clip guide will stop the blade from sliding past the guide's end. Ensure the guide is distal enough to perform an adequate fascial release). Only a single pass is required with the blade. Once transection is complete, remove the Tarsal Clip guide. Perform the same steps to the proximal end of the incision to fully release the proximal end of the flexor retinaculum and part of the deep fascia of the leg.

Closure

Irrigate the incision site. Release the tourniquet if one was applied. Ensure no pulsatile bleeding is noted. We recommend superficial closure only, with no deep sutures to prevent scarring and adhesions to the structures within the tarsal tunnel.

