Smith+Nephew

SUBTALAR MBA◊

Implant

Surgical Technique

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Nota Bene
The following technique is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on the product, including its indications for use, contraindications, and product safety information, please refer to the product's label and the Instructions for Use packaged with the product.

System description

The SUBTALAR MBA◊ titanium implant is the original, metallic arthroereisis implant for the correction of hyperpronated foot.

- Barrel-shaped implant
- Uniform implant diameter
- Patented slotted design helps prevent extrusion
- Simple, minimally-invasive surgical procedure
- Titanium Alloy

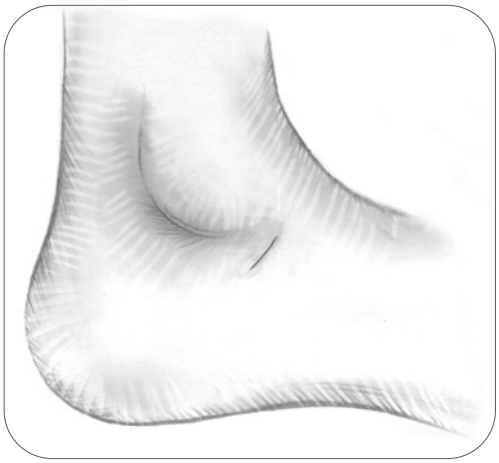

Figure 1-1

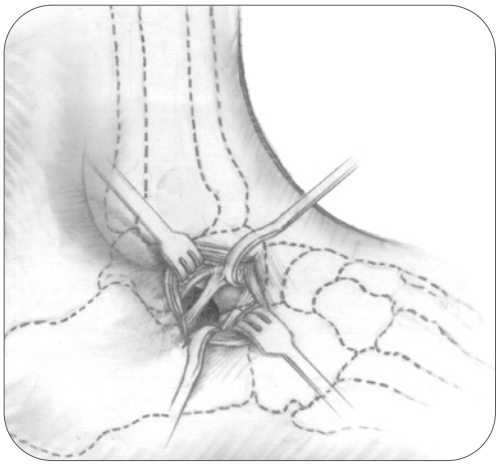

Figure 1-2

Surgical technique

Step 1 ▪ Incision and Dissection

1-1 The surgical technique is performed through a 2-4cm skin incision over the sinus tarsi along the relaxed skin tension lines **(Figure 1-1)**.

Care should be taken to avoid the intermediate dorsal cutaneus nerves superior to the incision as well as the sural nerve which should course inferior to the incision.

The deep fascia is identified and bluntly dissected allowing entrance into the sinus tarsi canal. It is important that minimal blunt dissection only be performed in the sinus tarsi. A (sinus tarsi) exposure or sectioning of the talo-calcaneal ligament structures is not performed **(Figure 1-2)**.

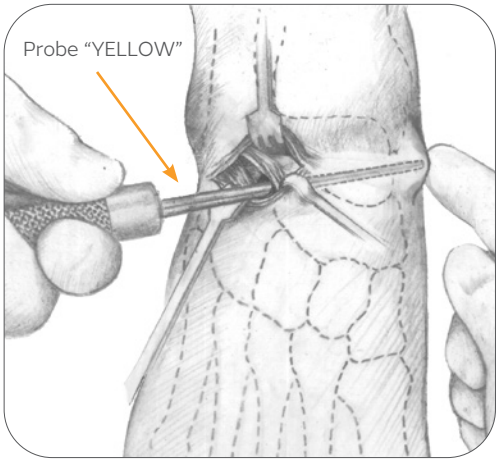

Figure 2-1

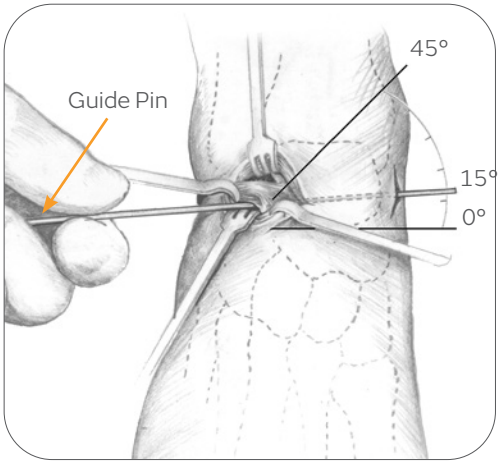

Figure 3-1

Step 2 ▪ Probe Insertion

2-1 Insert the yellow probe instrument through the sinus tarsi into the sinus canalis from lateral to medial until tenting is noted on the medial aspect of the foot **(Figure 2-1)**.

The probe should be positioned perpendicular to the lateral wall of the calcaneus, angled slightly posterior and superior.

Move the probe in a clockwise and counter clockwise direction to slightly dilate the tarsal canal.

Remove probe.

Step 3 ▪ Guide Pin Insertion

3-1 The guide pin is then inserted into the sinus tarsi from lateral to medial until tenting is noted on the medial aspect of the foot **(Figure 3-1)**. The guide pin should be positioned on the floor of the calcaneus and against the lateral process of the talus as the pin is inserted from lateral to medial and slightly posterior. It is suggested that a small incision be made minimally to allow passage of the guide pin through the medial aspect of the foot, just inferior to the tibialis posterior tendon and anterior and slightly inferior to the medial malleolus.

Note: Tenting is optional.

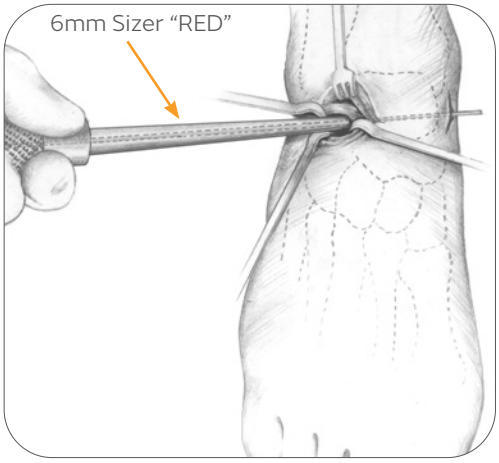

Figure 4-1

Step 4 ▪ Sizer Insertion

4-1 SUBTALAR MBA◊ Implant Sizer Insertion

Place the cannulated 6mm sizer over the guide pin and insert it through the sinus tarsi into the sinus canalis from lateral to medial **(Figure 4-1)**.

Continue to insert the remaining sizers (8, 9, 10, 12mm) through the sinus tarsi lateral to medial until proper correction is achieved.

Assess the range of motion of the subtalar joint.

The appropriate sizer should limit “abnormal” joint eversion. The appropriate size will allow the calcaneal subtalar joint complex to evert to approximately 2-4 degrees. However, a rectus calcaneal position is acceptable, and usually preferred.

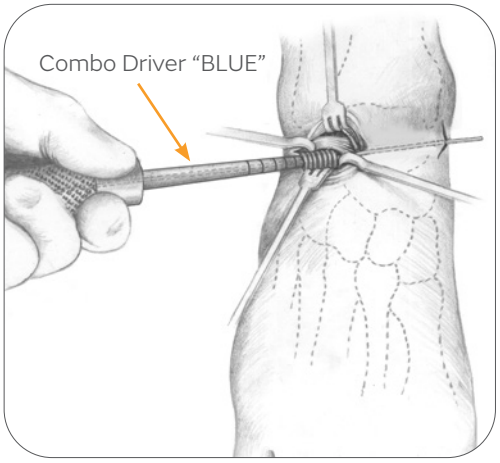

Figure 5-1

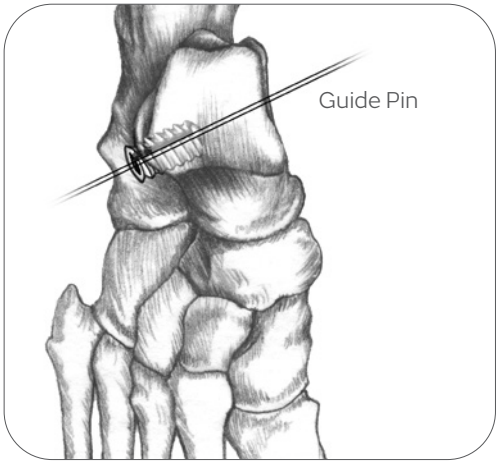

Figure 6-1

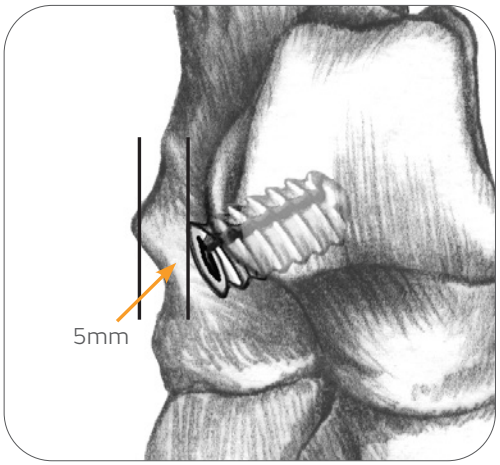

Figure 6-2

Step 5 ▪ Trial Implant Insertion

5-1 After the appropriate size implant is determined, the sizer is removed and a “sized” trial implant is placed in the sinus tarsi, utilizing the inserting device and guide pin.

Insert the corresponding trial implant using the cannulated 3.5mm Hex combo driver **(Figure 5-1)**.

Implant Combo Driver

- The insertion tool used to place the implant is double-sided, with a 3.5mm hex on one end of the driver and a torx on the opposite end of the driver.
- The metal portion of the driver may be removed from the blue handle to switch between the two different interfaces.
- To switch from the hex to the torx interface, pull the metal portion away from the blue handle. To expose the torx interface, flip the metal portion over, and insert the 3.5mm hex interface into the blue handle. Range of motion of the subtalar joint and clinical correction is assessed and determined.

Use intra-operative imaging to evaluate the degree of correction and placement of the Trial implant.

Step 6 ▪ Intra-Operative Radiographs

6-1 To determine the correct position on the AP view, the leading edge of the trial implant should approach, but not cross the longitudinal dissection of the talus **(Figure 6-1)**.

The trailing edge of the implant should be at least 5mm medial to the lateral wall of the calcaneus **(Figure 6-2)**.

Examining the lateral view, the trial implant should be angled posterior and the implant should not be sitting on the floor of the calcaneus.

Step 7 ▪ Implantation

7-1 Once the appropriate sized trial implant is determined, remove the trial implant.

The equivalent size sterile implant is placed onto the insertion tool over the guide pin and threaded in a clockwise direction until clinical correction is noted.

Intra-operative imaging is essential to verify proper positioning of the implant.

Once the implant has been properly positioned, assess the range of motion of the subtalar joint.

The appropriate size will allow 2-4 degrees of subtalar joint eversion.

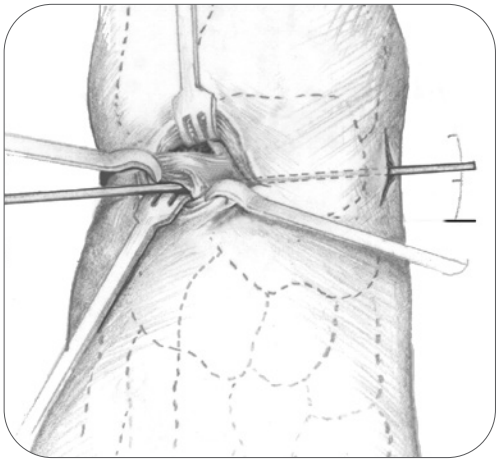

Figure 9-1

Step 8 ▪ Guide Pin Removal and Closure

9-1 Remove the guide pin medially if the small incision was made during Step 3 of the procedure **(Figure 9-1)**.

Note: If tenting was performed, the guide pin will be removed laterally.

Copiously irrigate the area with saline and reevaluate subtalar joint motion.

Close the deep tissue fascia, subcutaneous and skin layers.

Place the foot in a mildly compressive dressing.

Step 9 ▪ Post-Op / Follow-Up

10-1 Restrict ambulation for the first 48 hour, followed by protective weight-bearing in a removable, below-the-knee walking cast for two weeks.

Allow a gradual return to activity over the course of the next month.

Note: Typically, adjunctive procedures are performed, so the appropriate post-operative care should be followed for these procedures.

Product information

Reference	Description	Size
05-0106	Subtalar Implant	6mm
05-0108	Subtalar Implant	8mm
05-0109	Subtalar Implant	9mm
05-0110	Subtalar Implant	10mm
05-0112	Subtalar Implant	12mm
05-0017	Guide Pin	2mm (.078 in.)
04-1040	Combo Driver	
05-5001	Instrument Case	

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Surgical Technique
Smith+Nephew does not provide medical advice and does not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any implant procedure is responsible for determining and using the appropriate techniques for implanting the device in each patient.

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Smith & Nephew, Inc.
1450 Brooks Road
Memphis, Tennessee 38116
USA

www.smith-nephew.com
T: 1-901-396-2121
Orders and Inquiries:
1-800-238-7538

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Manufactured by:
Smith & Nephew, Inc.
1450 Brooks Road
Memphis, TN 38116 | USA