CLOSURE

The surgeon closes in his usual manner. It is absolutely necessary, however, to close the capsular plane with an absorbable suture before closing the superficial planes.

According to surgeon preference the tourniquet can be released to attain haemostasis before closure. Drain and suture the subcutaneous plane then using either continuous or interrupted sutures close the skin. Nonabsorbable stitches are removed after 2 to 3 weeks.

POSTOPERATIVE PRECAUTIONS

It is particularly important to avoid the normal push-off phase of gait for 45 days and the patient should wear a postoperative shoe as a precautionary measure. At the end of this period the arthrodesis can be considered as consolidated.

Radiograph of the arthrodesis

Document subsidized by:

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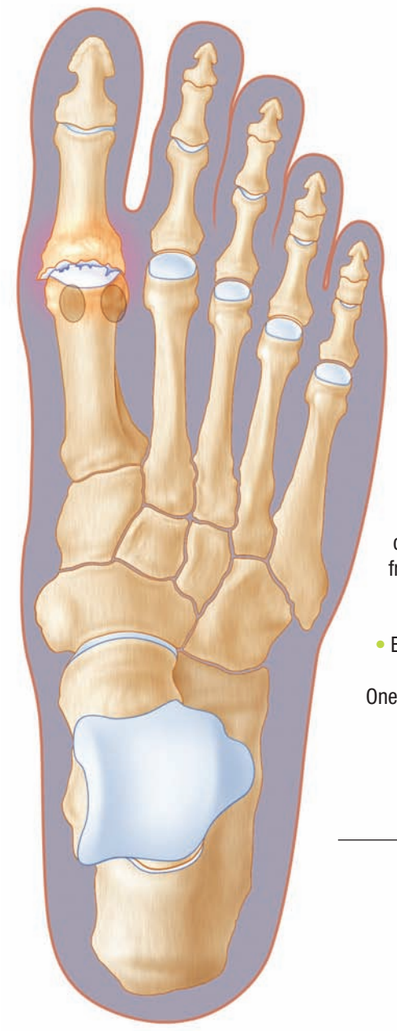
HALLUX VALGUS

TECHNICAL INFORMATION SHEET

ARTHRODESIS OF THE 1ST METATARSOPHALANGEAL JOINT

Document produced by the TALUS group of GECO (www.geco-medical.org) - 2004. GECO



Arthrosis of the great toe

The main indications for arthrodesis are advanced degenerative joint disease (Hallux Rigidus), major static disorders, certain cases of Hallux Valgus, certain cases of revision surgery for Hallux Valgus or special cases where the first ray must play a role in maintaining forefoot stability.

The advantages of the suggested hardware include:

- Excellent primary stability due to the quality of cancellous bony purchase: a consequence of appropriate thread size distally (equivalent to the thread of the AO small fragment screw), and appropriate diameter of the screws (large enough),
- Excellent interfragmentary compression due to the differential thread.

One screw may be all that is required.

ARTICULAR APPROACH

The skin incision is centered over the joint on the medial side of the foot. The joint should be initially debrided so that the bony cuts can be performed.

Creation: transparence - www.transcrea.com - 03/2005

ARTHRODESIS OF THE 1ST METATARSOPHALANGEAL JOINT

PREPARATION FOR ARTHRODESIS

Articular excision

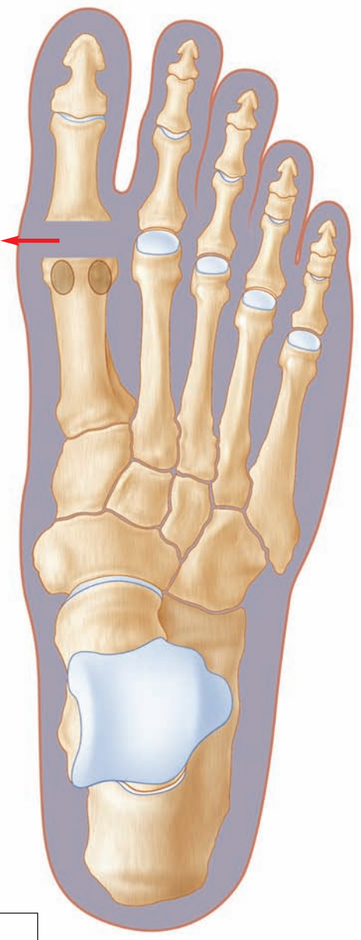
Using an oscillating saw the osteotomies are made flat and should be as thin as possible to conserve bone stock.

They should realign the toe and give a slight extension to the great toe (about 15° in men and 20° in women, unless there are special circumstances).

The automatic shortening of the great toe may help with the subsequent gait pattern. The bone surfaces are then opposed and maintained in this position during drilling.

The entry point for the drill is situated at the neck of the 1st metatarsal on its projecting medial plantar edge (at the level of the neck and behind the head)..

The drill is aimed at the lateral condyle of the 1st P. It is directed laterally,superiorly and distally following the axis of the phalanx.



Articular reshaping

To make apposition easier, to improve bone contact and to avoid excessive shortening, the articular surfaces can be shaped using fine nibblers (Gouge forceps) or a burr. This allows the creation of a convex metatarsal bone surface and a matching concave phalangeal surface. The principles of resurfacing and fixation remain the same.

Straight cuts	Resurfacing
• Shortening appropriate to an Egyptian foot type • Shortening enables correction of rigid deviations: Hallux Valgus and Hallux Varus • Construct has immediate stability	• Bone preservation is preferable in the Greek foot type or in revision surgery where shortening has already been caused by prior Hallux Valgus surgery • Makes it possible to select the optimum orientation once the surfaces are prepared, with fewer constraints on the surgeon
• Substantial sacrifice of bone stock • Obliges the surgeon to shorten even further in cases of poor adjustment	• Requires a very solid construct in order to obtain good primary stabilization because there is little intrinsic immediate stability

TECHNICAL INFORMATION SHEET

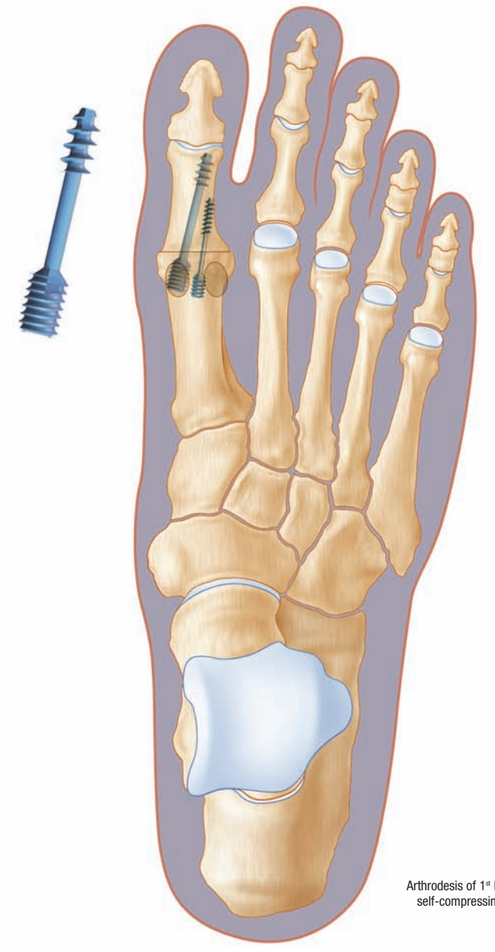
ARTHRODESIS OF THE 1ST METATARSOPHALANGEAL JOINT

FIXATION

Use the gauge for measuring and direct reading of the implant size.

The arthrodesis screw may be inserted manually or by using power. Because of the powerful self-compression produced by the device, it is important to maintain a stable position of the bone segments when inserting the screw, using either forceps or a temporary pin, so that the construct is as solid as possible.

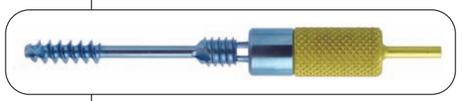
Once the screw is in position satisfactory primary stability is guaranteed. However if there is any concern regarding the need for better control of rotation, then it is advisable to add a second self compressing screw of smaller diameter, a pin, or a staple according to the surgeon's preference.



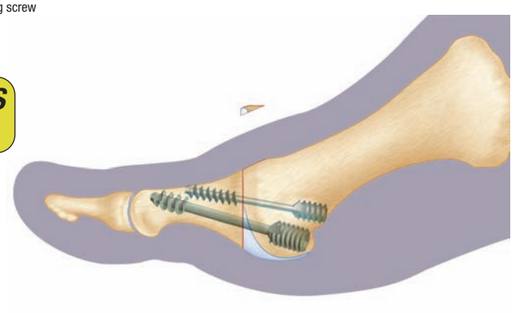
Arthrodesis of 1st MTP using self-compressing screw

Arthrodesis screw directed laterally,superiorly and distally

SNAP-OFF SCREW FOR ARTHRODESIS OF THE GREAT TOE (MPGT)



L28	*242 456*	L36	*242 460*
L30	*242 457*	L38	*242 461*
L32	*242 458*	L40	*242 462*
L34	*242 459*	Ref. FH ORTHOPEDICS	



Side view of arthrodesis