

PHALANGEAL OSTEOTOMY

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GECO

It may be necessary to complete the metatarsal correction by means of a phalangeal osteotomy (known as an Akin osteotomy).

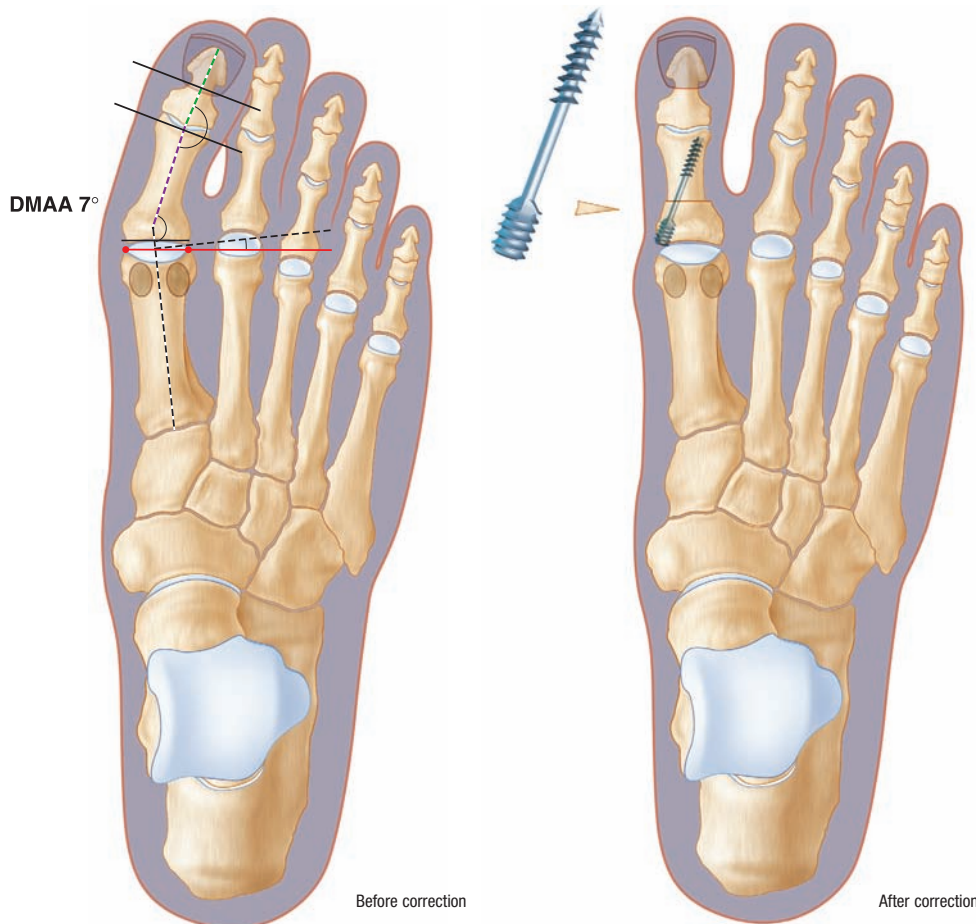
Phalangeal osteotomy is considered appropriate for 3 types of corrections :

- > shortening in cases of gigantism of the hallux necessitating a bicortical reduction osteotomy or a shortening osteotomy,
- > correction of an interphalangeal valgus with a varisation osteotomy,
- > correction of pronation with a derotation osteotomy.

This osteotomy permits correction in 3 planes of the space and brings about correction by shortening, varisation and derotation.

OSTEOTOMIES

The osteotomy is performed with an oscillating saw. The principle is to perform the distal osteotomy parallel to the root of the nail (1st line) and the proximal osteotomy parallel to the base of the 1st phalanx (2nd line). A triangle or parallelepiped-shaped resection is then performed correcting the interphalangeal valgus.



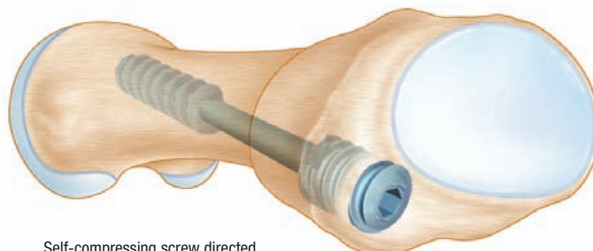
FIXATION

Fixation of the osteotomy is then performed simply by the oblique insertion of a self-compressing screw (generally using the larger sizes from L26 to L30), which makes it possible to obtain:

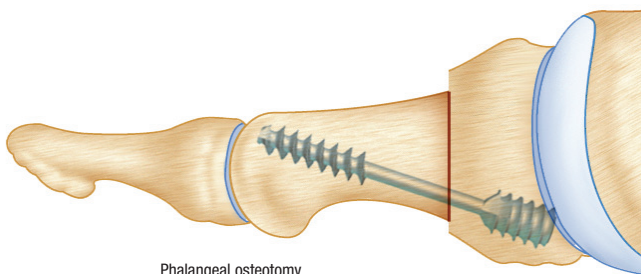
- > excellent primary stability due to the quality of bony purchase distally; a consequence of:
 - sufficiently large screw diameter,
 - appropriate distal thread size in cancellous bone (equivalent to the cancellous thread of the AO small fragment screw).
- > excellent inter-fragmentary compression due to the differential thread.

It is important to perform anterograde insertion of compression screws using the following technique:

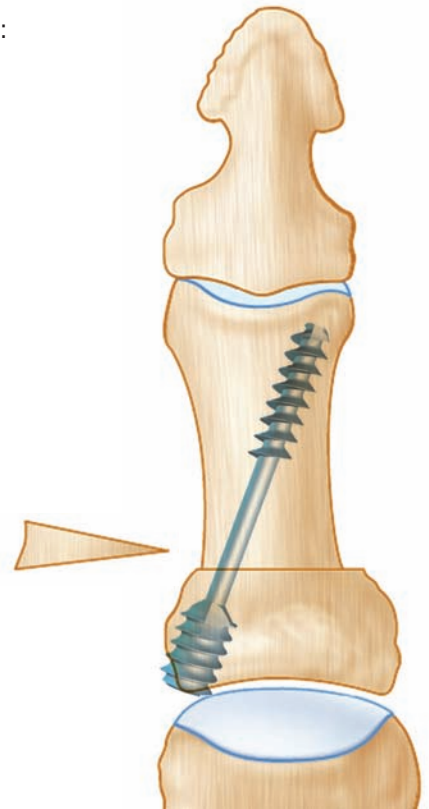
- > First clear a small extra-articular area of the phalangeal edge. The point of entry for the drill is situated over the base of the 1st metatarsal on its projecting medial plantar edge,
- > The drill is aimed towards the lateral condyle of the 1st phalanx and is thus directed:
 - forward (distally),
 - upward (dorsally),
 - laterally.



Self-compressing screw directed forward, upward and laterally

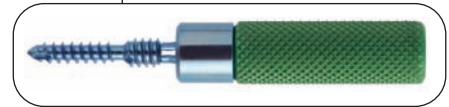


Phalangeal osteotomy lateral view



Phalangeal osteotomy viewed from above

SNAP-OFF SELF-COMPRESSING SCREW



L10	242 446	L24	247 581
L12	242 447	L26	242 451
L14	242 448	L28	242 452
L16	242 449	L30	242 453
L18	242 450	L32	242 454
L20	247 579	L34	242 455
L22	247 580	Ref. FH ORTHOPEDICS	

VERIFICATIONS AND TESTING

It is important to ensure that the phalangeal correction is adequate and stable before closure by means of a simulated weight bearing test.

Document subsidized by:

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