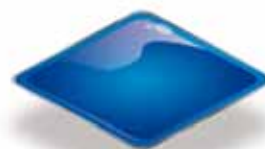


Pyxis

Cannulated \O 2.5 mm compression screw
Surgical Technique



EOS

ORTHOPAEDIC IMPLANTS

Indications

The Pyxis screw is indicated for stabilization of forefoot osteotomies :

- 1st metatarsal osteotomies for Hallux Valgus (e.g. Scarf, Chevron),
- Phalangeal osteotomies of the great toe,
- Distal or proximal metatarsal osteotomies (e.g. Weil),
- 5th metatarsal osteotomies,
- Fixation of small bone fragments.



Characteristics

Hand surgery (fractures, osteotomies and arthrodesis).



Description

Cannulated 2.5 mm titanium compression screw :

- Completely countersunk screw.
- Large range of sizes : 10 -11-12-13-14 mm and 16 to 28 mm (in 2 mm increments),
- 0.8 mm k-wire guided drilling and screwing,
- Self tapping,
- The head of the screw has to be fully embedded in order to avoid conflict with soft tissues,
- Titanium alloy (TA6V ELI standard ISO 5832-3),
- International patent.

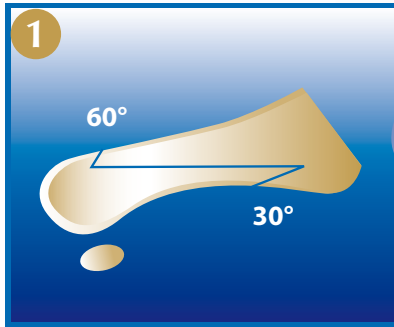
Pyxis

Surgical Technique

1 - « Scarf » Metatarsal osteotomy :

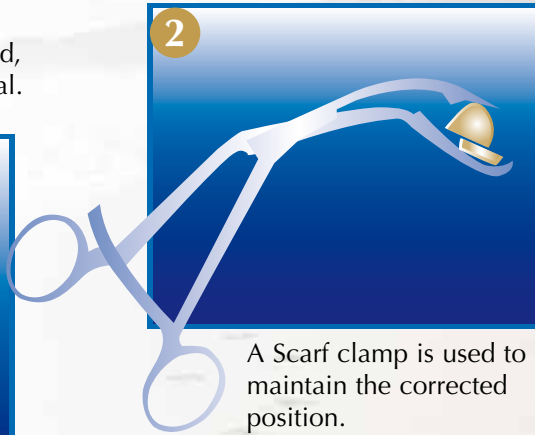
SCARF osteotomies allows several corrections :

- Medial and lateral translation,
- DMAA,
- Lowering of the metatarsal head,
- Shortening of the first metatarsal.

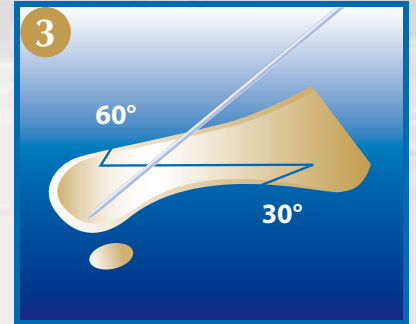


Dr Maestro

After the longitudinal cut and transverse cuts are performed, the appropriate correction is made by translation and/or by shortening and/or by rotation.



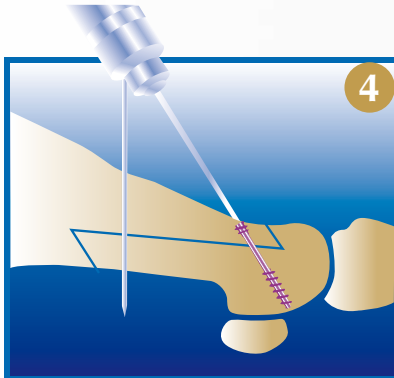
A Scarf clamp is used to maintain the corrected position.



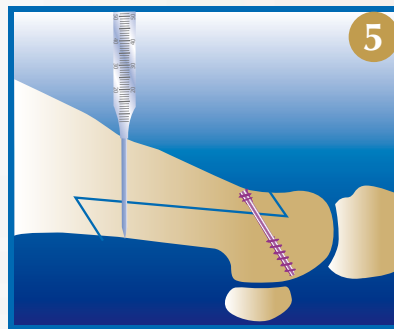
A 0.8 mm K-wire is introduced 1 cm from the distal transverse cut, and a proximal 0.8 mm K-wire is introduced obliquely.



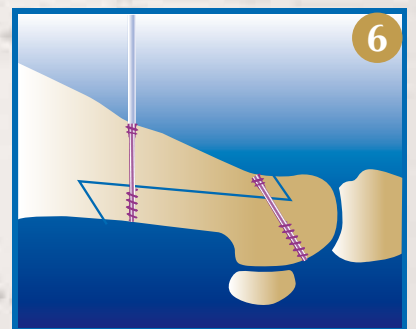
The cannulated step drill is graduated from 15 mm in 5 mm increments.



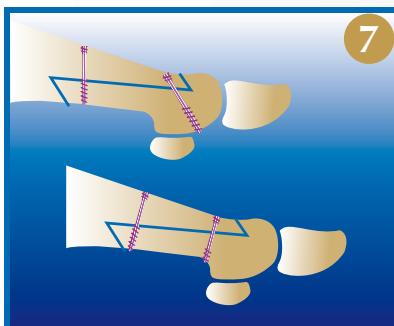
The first screw is distal and unicortical.



The length of the screw is measured (usually 18 or 20 mm).



The cannulated step drill (2.0 mm diameter proximally and 1.8 mm distally) is inserted over the 0.8 mm K-wire.



The distal end of the Pyxis screw is designed to minimize soft tissue damage.



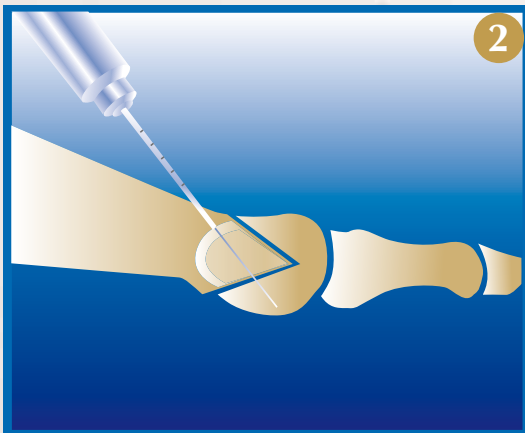
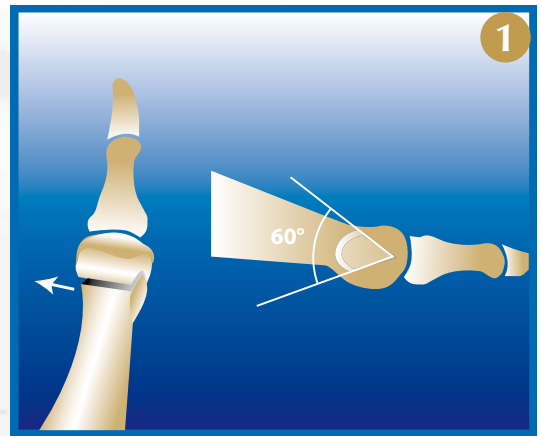
NB : The Pyxis screw is inserted obliquely in the metatarsal head. It is important to adequately prepare the proximal part of the drillhole to allow the head of the screw to be fully countersunk.

Pyxis

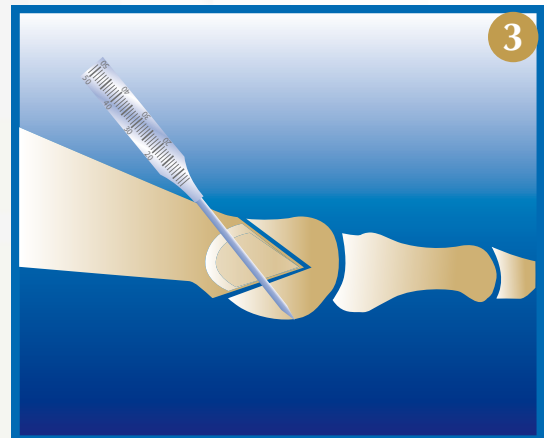
Surgical Technique

2 - « Chevron » Metatarsal osteotomy :

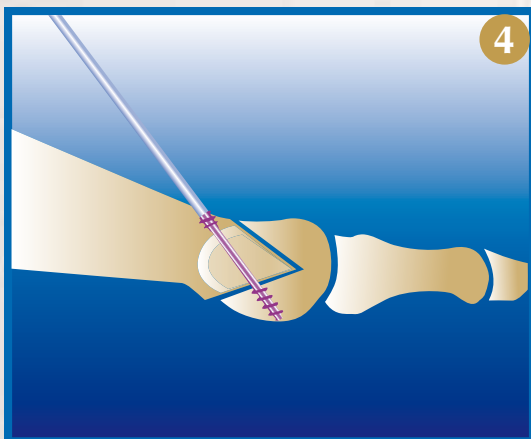
The CHEVRON osteotomy is a V-type distal osteotomy of the first metatarsal. The osteotomy respects the blood supply to the plantar aspect of the head and the neck. This osteotomy allows correction by translation and/or rotation.



At 5 mm from the dorsal transverse cut, a 0.8 mm K-wire is introduced obliquely into the plantar aspect of the metatarsal head. The screw is inserted proximally and is uni-cortical. The cannulated step drill (2.0 mm diameter proximally and 1.8 mm distally) is inserted over the 0.8 mm K-wire.



The length of the K-wire is measured.



And approximately 3 mm subtracted to give the length of the screw.



NB : The Pyxis screw is inserted obliquely in the metatarsal head. It is important to adequately prepare the proximal part of the drillhole to allow the head of the screw to be fully countersunk.

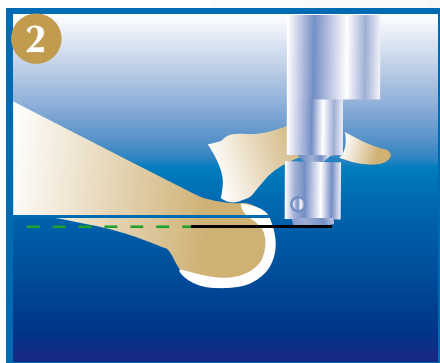
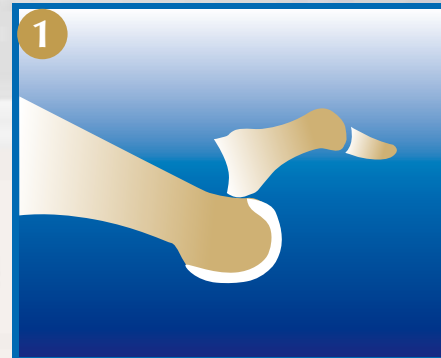


Pyxis

Surgical Technique

3 - Distal Metatarsal osteotomy « Weil osteotomy » :

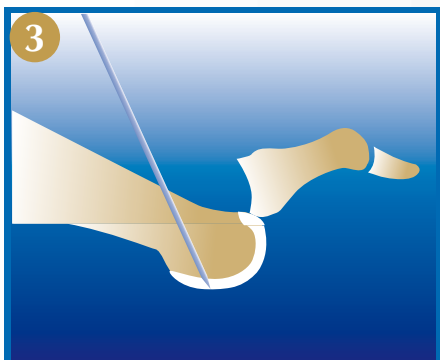
The Weil osteotomy is a shortening osteotomy performed at the lesser metatarsal head-neck region. The osteotomy is performed as horizontally as possible. Possible indications are metatarsalgia, metatarso-phalangeal joint subluxation or dislocation and symptomatic abnormalities of the lesser metatarsal parabola. The amount of required shortening is based on clinical and radiographic evaluation.



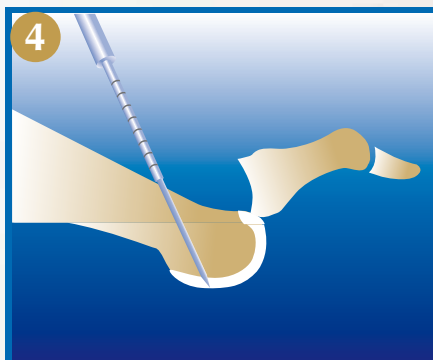
It is recommended to remove bone from the undersurface of the dorsal fragment if a shortening of more than 4 mm is undertaken. This avoids excessive plantarflexion with proximal migration of the metatarsal head.

The position of the head corresponds to the amount of required shortening. The position is maintained with a clamp and/or direct pressure under the metatarsal head.

The overhanging dorsal bone is removed with a saw or a bonecutter.



A 0.8 mm K-wire is introduced on the dorsal bone fragment, 1 cm from the metatarsal head, with an oblique angle of 45°.

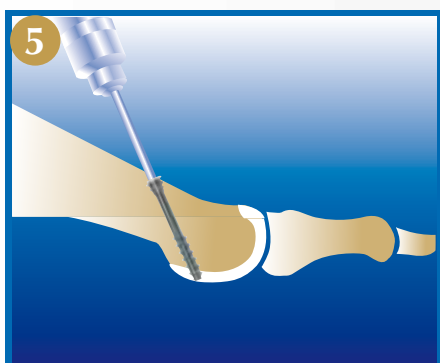


Only the narrow (1.8 mm) part of the stepdrill is used, as the 2 mm part may cause a fracture of the bone.



NB : The Pyxis screw is inserted obliquely in the metatarsal head.

It is important to adequately prepare the proximal part of the drillhole to allow the head of the screw to be fully countersunk.



The Pyxis screw is introduced over the 0.8 mm K-wire and embedded completely flush with the bone.



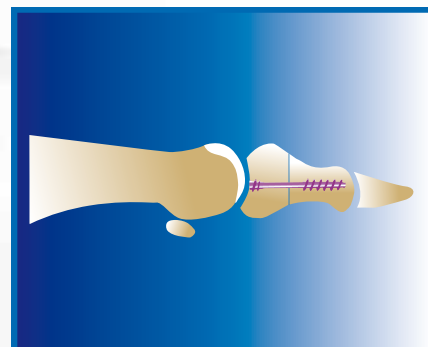
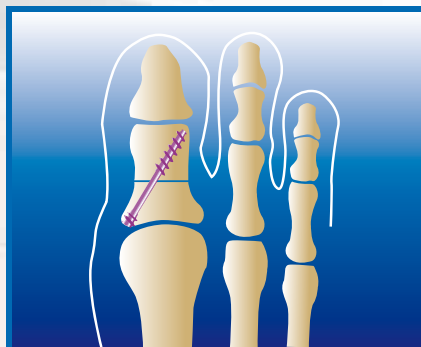
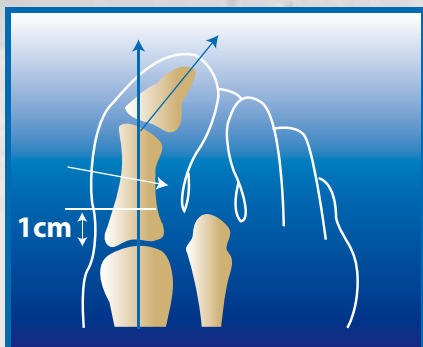
The recommended screw length is 12 mm for M2 and M3, and 11 mm for M4 and M5.



Pyxis

Surgical Technique

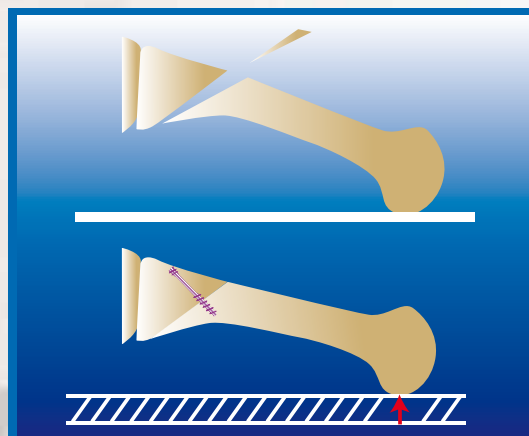
Other uses of the PYXIS screw



Shortening and/or varisation of Great toe proximal phalanx



M5 Scarf osteotomy



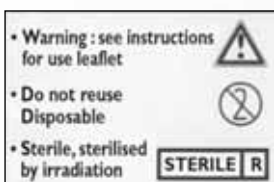
Basal Metatarsal osteotomy « BRT »

INSTRUMENTS

REFERENCE	DESIGNATION
AD300.01	PYXIS container
AD300.07	PYXIS green lid
AD300.30	PYXIS instrumentation tray
AP09.006	AO Pyxis drill Ø 1.8mm Lg 70 mm
TV230	AO Cannulated PYXIS screwdriver
AP09.008	A0 cannulated Pyxis drill Ø 1.8mm lg 28mm
AP09.112	AO Cannulated conical PYXIS drill Ø 1.8mm lg 20mm
AP09.111	AO conical PYXIS drill Ø 1.8mm lg 20mm
MV000	Quick coupling A0 handle
SB100	Ø 0.8mm K-wires tube
JD000	Ø 0.8mm K-wires gauge
BR080	Ø 0.8mm K-wires
AP09.006	AO Pyxis drill Ø 1.8mm Lg 70mm
TV230	AO Cannulated PYXIS screwdriver
AP09.008	A0 cannulated Pyxis drill Ø 1.8mm lg 28mm
AP09.112	AO Cannulated conical PYXIS drill Ø 1.8mm lg 20mm
AP09.111	AO conical PYXIS drill Ø 1.8mm lg 20mm
MV000	Quick coupling A0 handle
SB110	Ø 0.8mm K-wires tube
JD002	D0.8mm & D1.0mm K-wire gauge
BR080	Ø 0.8 k-wire lg 80mm

IMPLANTS

REFERENCE	DESIGNATION
STP09.025.010	Pyxis Compression screw Ø 2.5 mm Length 10 mm
STP09.025.011	Pyxis Compression screw Ø 2.5 mm Length 11 mm
STP09.025.012	Pyxis Compression screw Ø 2.5 mm Length 12 mm
STP09.025.013	Pyxis Compression screw Ø 2.5 mm Length 13 mm
STP09.025.014	Pyxis Compression screw Ø 2.5 mm Length 14 mm
STP09.025.016	Pyxis Compression screw Ø 2.5 mm Length 16 mm
STP09.025.018	Pyxis Compression screw Ø 2.5 mm Length 18 mm
STP09.025.020	Pyxis Compression screw Ø 2.5 mm Length 20 mm
STP09.025.022	Pyxis Compression screw Ø 2.5 mm Length 22 mm
STP09.025.024	Pyxis Compression screw Ø 2.5 mm Length 24 mm
STP09.025.026	Pyxis Compression screw Ø 2.5 mm Length 26 mm
STP09.025.028	Pyxis Compression screw Ø 2.5 mm Length 28 mm

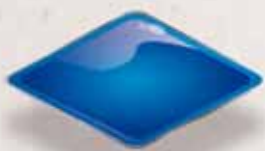


The products are manufactured and referenced within the frame of the standards in force. Implantation procedures are described in the surgical technique.

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WARNING : Federal law (USA) restricts this device to sale by or on the order of a physician.

Pyxis



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