



FOOT

HINDFOOT SURGERY

SURGICAL TECHNIQUE

15 STEPS

CALCANail

CALCANEAL FRACTURES



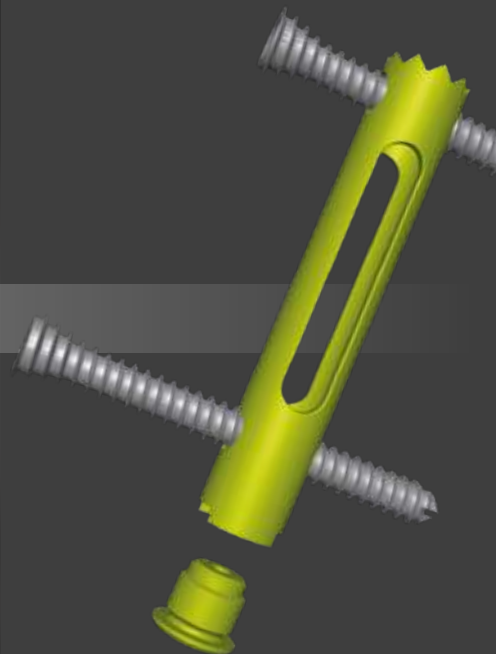
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P^r Patrick SIMON

GROUP
FH ORTHO™



THE FRACTURE TECHNIQUE

- Minimally invasive approach at the posterior calcaneal tuberosity avoids complications associated with standard lateral approach;
- Locking nail holds posterior talar articular surface in the proper position after intrafocal reduction;
- Option to convert easily from internal fixation procedure to subtalar fusion.



The Calcanail fracture step by step

1

Patient positioning

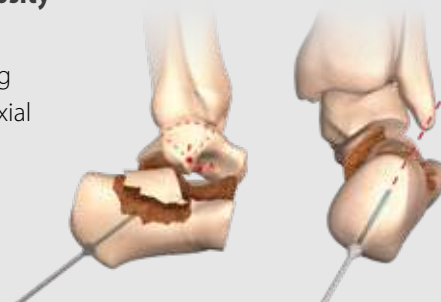
Side-lying or prone



2

Placement of K-wire in posterior tuberosity

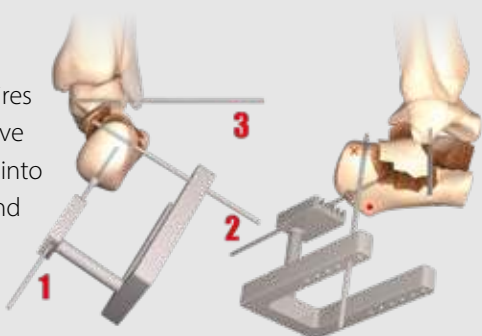
Controlled centring using lateral and axial amplifier



3

Placement of distractor K-wires

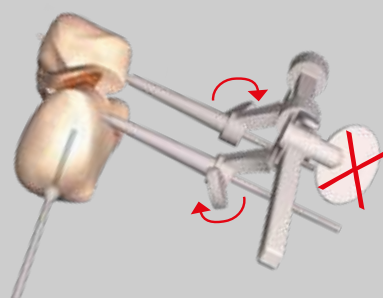
Introduce 2 K-wires with a motor drive perpendicularly into the calcaneus and the talus



4

Fixation of the distractor

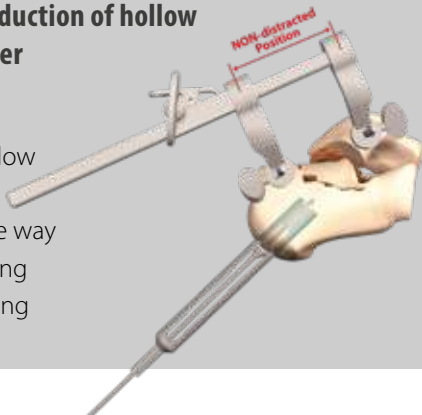
Make parallel the K-wires, insert and lock in the distractor placed on the lateral facet



5

Introduction of hollow reamer

Introduce the hollow reamer with a motor drive all the way to the fracture using fluoroscopy tracking



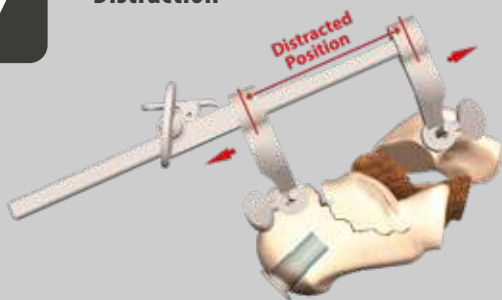
6

Extraction of the hollow reamer

Bone plug removal



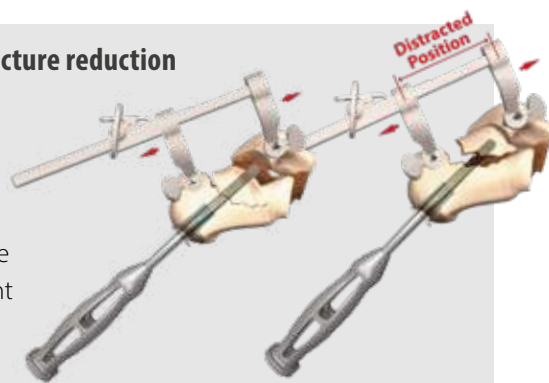
7

Distraction

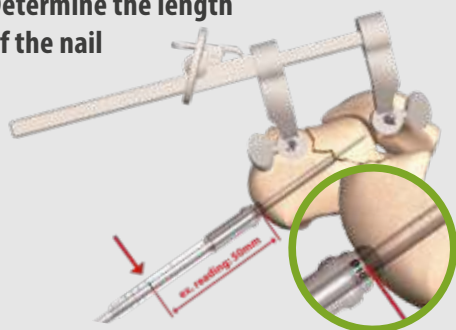
8

Fracture reduction

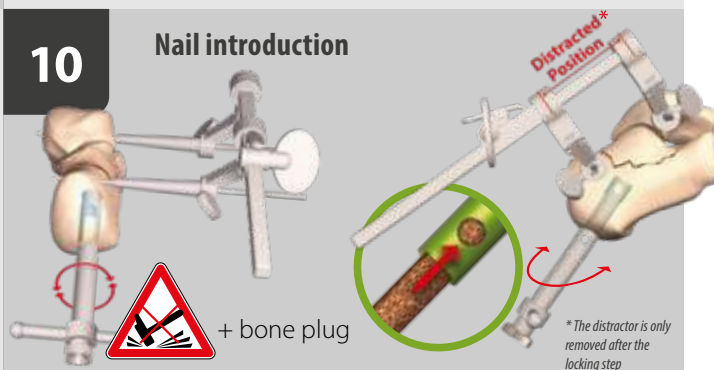
If the fracture is of the mixed type, reduce the medial fragment first



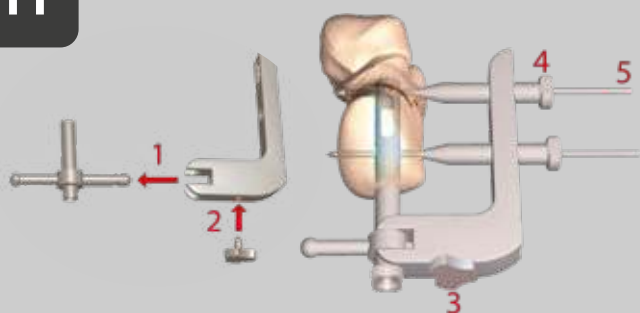
9

Determine the length of the nail

10

Nail introduction

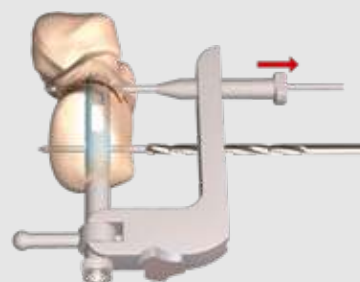
11

Placement of the alignment frame

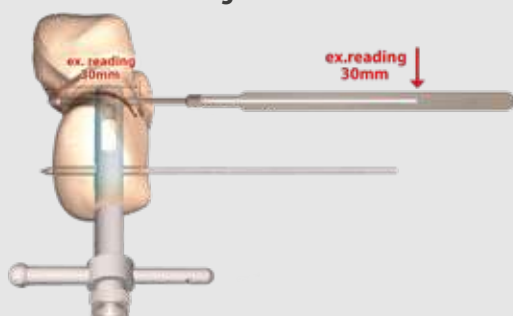
12

Preparation for the locking step

Remove the drill guide and drill on K-wire with a cannulated drill



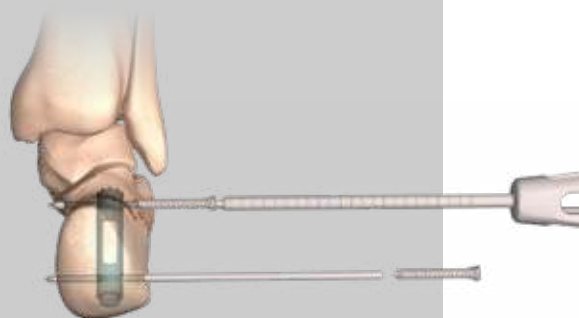
13

Measure the length of the screws

14

Locking step

Introduce the 2 screws using the guide wires



15

Placement of the cap

With the screwdriver, introduce the cap, then remove the K-wires, nail holder, distractor, and close the various incisions

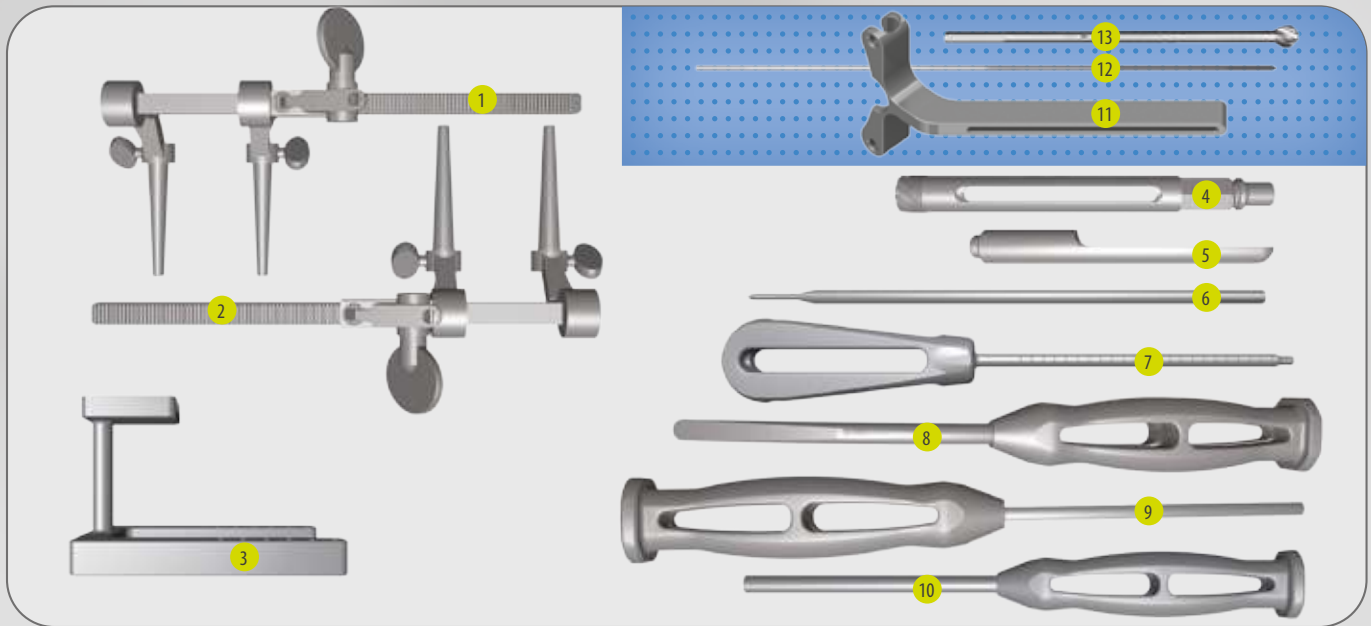
**Implants references**

REF.	FRACTURE NAIL Ø10
265 546	Ø10 L 45 + cap
265 547	Ø10 L 50 + cap
265 548	Ø10 L 55 + cap

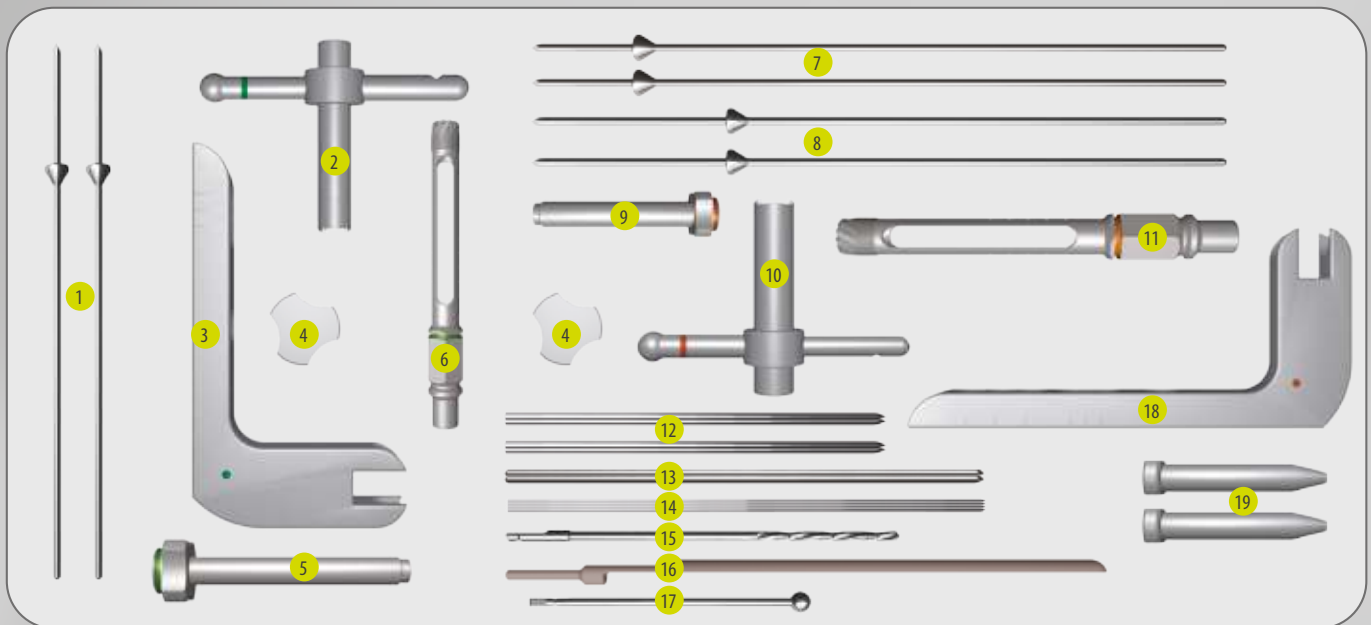
REF.	SCREW
267 264	Ø5 L 24
267 265	Ø5 L 26
267 266	Ø5 L 28
265 552	Ø5 L 30
265 553	Ø5 L 32
265 554	Ø5 L 34
265 555	Ø5 L 36
265 556	Ø5 L 38
265 557	Ø5 L 40

REF.	HIGH LENGTH SCREW
265 558	Ø5 L 45
265 559	Ø5 L 50
265 560	Ø5 L 55
265 561	Ø5 L 60
265 562	Ø5 L 65
265 563	Ø5 L 70
265 564	Ø5 L 75
265 565	Ø5 L 80

V3 INSTRUMENTATION



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|---|--------------|-----------------------------------|--------------|-------------------------------------|--------------|
| 1. Distractor | ref. 265 599 | 6. Nail lenght gauge | ref. 268 772 | 10. Calcanail curved tamp | ref. 265 575 |
| 2. Compressor | ref. 266 353 | 7. Calcanail nail guide | ref. 266 291 | 11. Calcanail straight tamp | ref. 265 576 |
| 3. Calcanail Positioning square | ref. 266 147 | 8. Ø18 Cannulated 3.5 screwdriver | ref. 254 599 | 12. Guide K-wire Ø2.4 Lg 250 (x2) | ref. 264 586 |
| 4. Screwing guide with window | ref. 268 771 | 9. Spatula | ref. 265 586 | 13. Cannulated drill bit Ø12 Lg 180 | ref. 271 315 |
| 5. Hollow reamer for fusion nail removal Ø14 L140 | ref. 268 770 | | | | |



- | | | | | | |
|--|--------------|--|--------------|--|--------------|
| 1. Calcanail Ø10 K-wire with stopper | ref. 265 570 | 8. K-wire with stopper Ø3,2 Calcanail Ø12 (x2) | ref. 267 259 | 15. Drill bit Ø3.7 for cannulated screw | ref. 265 587 |
| 2. Calcanail nail holder Ø10 | ref. 265 579 | 9. Calcanail Handle-Nail connector Ø12 | ref. 268 769 | 16. Cannulated screw length gauge L 150/200 mm | ref. 266 146 |
| 3. Alignment frame for fracture nail Ø10 | ref. 265 577 | 10. Calcanail nail holder Ø12 | ref. 265 580 | 17. Ball End Burr Ø7.9 L110 | ref. 267 441 |
| 4. Alignment frame-nail holder connecting screw (x2) | ref. 265 581 | 11. Calcanail hollow reamer Ø12 L140 | ref. 267 056 | 18. Frame for fusion nail Ø12 | ref. 265 578 |
| 5. Calcanail Handle-Nail connector Ø10 | ref. 268 768 | 12. K-wire for distractor Ø3.2 L 150 mm (x4) | ref. 265 668 | 19. Drill guide for K-wire Ø1.6 L 200mm (x2) | ref. 266 148 |
| 6. Calcanail hollow reamer Ø10 L105 | ref. 267 055 | 13. K-wire Ø3.2 L 200 mm (x2) | ref. 267 527 | | |
| 7. Short K-wire with stopper Ø3,2 Calcanail Ø12 | ref. 267 777 | 14. K-wire for cannulated screws Ø1.6 L 200 mm | ref. 266 158 | | |

OPTION FOR VERY DENSE BONE:

1. Guide K-wire Ø2.4 Lg 250 (x2).....ref. 264 586
2. Cannulated drill bit Ø12 Ø2.4 Lg 180.....ref. 271 315



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