

The Radiolucent Wrist Fixator

By Dr. D. L. Nelson

15

INSERTION OF METACARPAL SCREWS

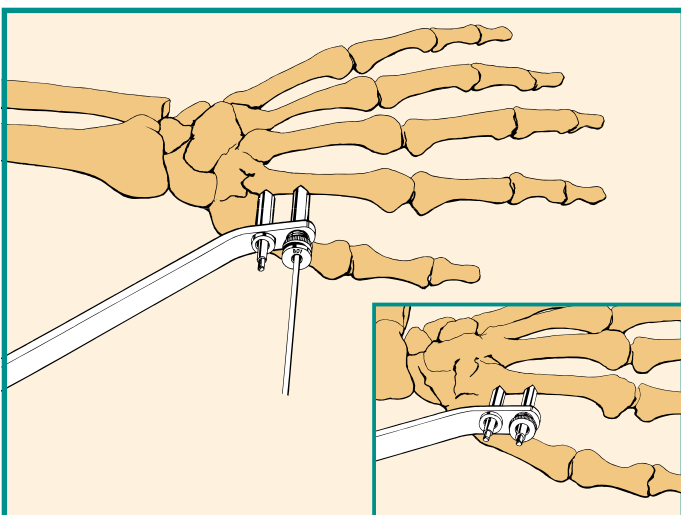
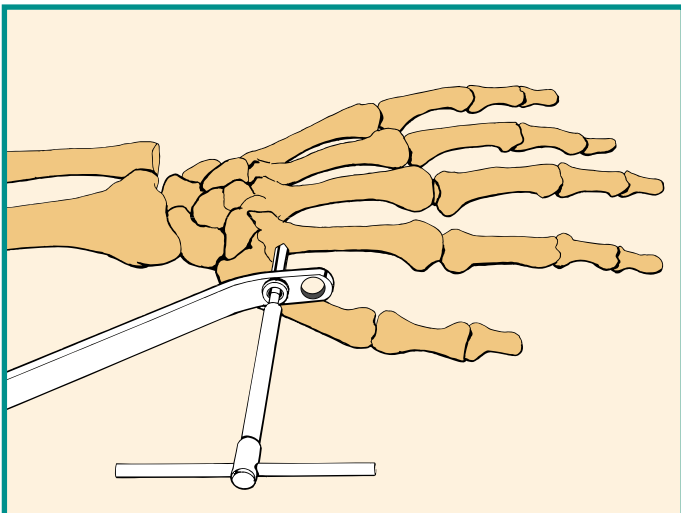
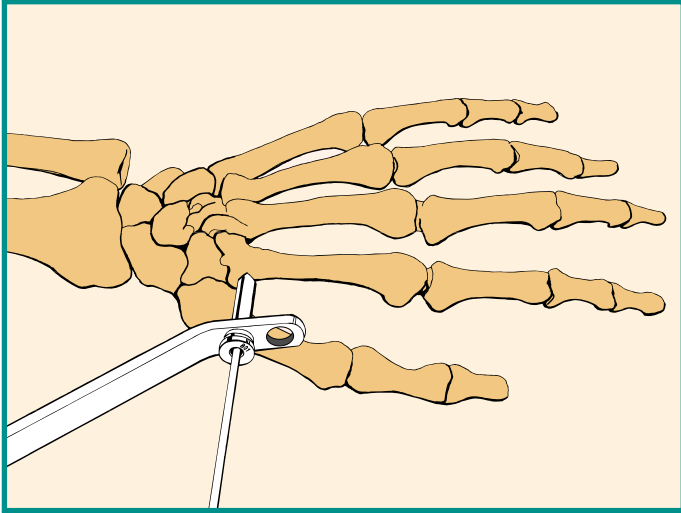
- Apply the fixator either laterally in the frontal plane or at an angle of about 45° from the frontal plane. Use a tourniquet. Insert the proximal metacarpal screw first. Make a longitudinal stab incision close to the base of the bone, on the flare of the tubercle of the second metacarpal, and dissect the soft tissues down to the bone. Remove the threaded guide from the template and position the end of the fixed guide close to the base of the bone, on the flare of the tubercle and in the central axis. Insert a drill guide into the fixed guide and drill the bone with a 2.7 mm drill bit.

Note: Avoid over-penetration of the second cortex.

- Remove the drill guide and insert a 70/20 mm screw using a T-wrench.

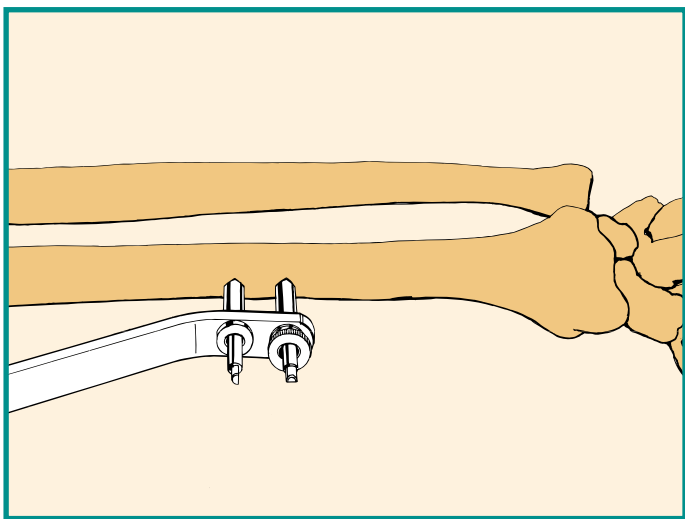
Note: Only 1-2 mm of the screw tip should penetrate the second cortex to avoid the risk of soft tissue damage. Do not advance screws too far since, due to their tapered thread design, they will become loose if they are backed out.

- Insert the threaded screw guide fully into the screw template, locate it in the centre of the bone axis, and repeat the above procedure for the distal metacarpal screw.



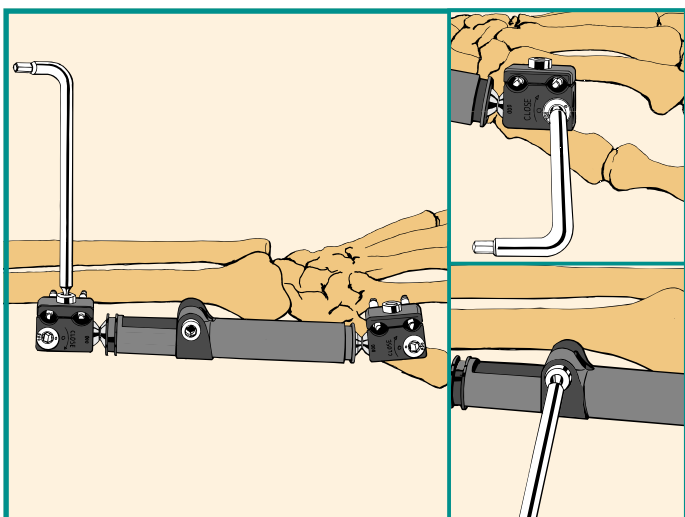
INSERTION OF RADIAL SCREWS

- Insert the radial screws using an open approach. Mount the fixator temporarily on the distal screws and mark the position of the proximal screws on the skin. Ensure that the fixator body is partially open, to allow for intra-operative distraction or compression of the fracture. Make a 3 cm incision, and expose the bone by blunt dissection to avoid injury to the superficial branch of the radial nerve. Insert two 70/20 radial screws using the same technique as above.



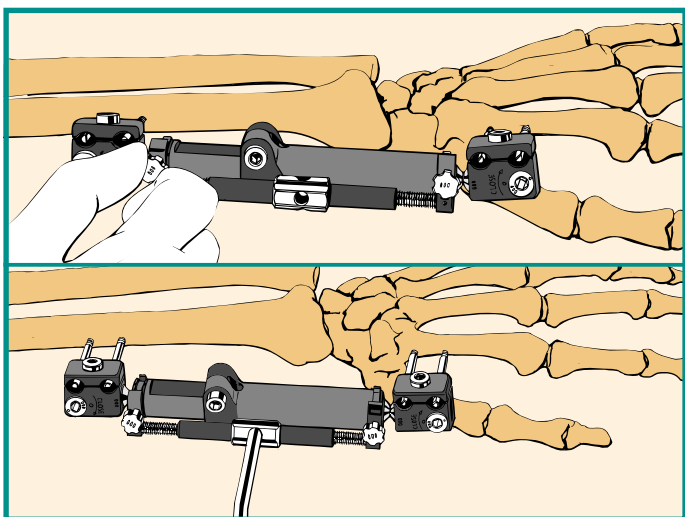
- Place the fixator over the screws with cams and central body locking nut loosened, ensuring that the central body locking nut does not lie over the fracture site since it is not radiolucent. Tighten the clamp cover locking screws with the 4 mm Allen wrench. Reduce the fracture and tighten the cams and central body locking nut with the 4 mm Allen wrench.

Note: The cams tighten only clockwise, as indicated by the arrow on the fixator clamp.



- When using the compression-distraction unit, locate the clamps in the slots on the body of the fixator and tighten the two set screws. To achieve controlled compression or distraction, loosen the central body locking nut and turn the central element of the compression-distraction unit. Once this has been achieved, tighten the central body locking nut and remove the compression-distraction unit.

Note: Check the amount of wrist joint distraction by X-ray before the patient leaves the operating room to ensure that the joint is not left in over-distraction.



The Orthofix Quality System has been certified to be in compliance with the requirements of:

- Medical Devices Directive 93/42/EEC, Annex II - (Full Quality System)
- International Standards EN 46001/ISO 9001

for orthopaedic external fixator systems including bone screws, nails and wires, sterile external and internal fixation systems.



See "Orthofix External Fixation System" instructions leaflet (PQ EXF) and appropriate Operative Manual prior to use.

Your Distributor is:

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