

METACARPAL SURGICAL TECHNIQUE

STERILE NX NAIL SYSTEM

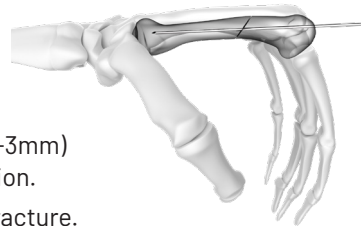
STEP 1: PREOPERATIVE PLANNING

- **Open Sizing Template:** Individually packed single-use sterile sizing template (NXSGs/961).
- **Confirm Diameter:** Under fluoroscopy, align template arm edges with isthmus borders and select size smaller than line-to-line fit to avoid making contact with cortical bone.
- **Measure Length:** With template still in situ, identify length that crosses the fracture and provides enough distal purchase.
- **Open Sterile Instrument Kit:** Select size specific single-use instrument kit and inspect for damage prior to opening.



STEP 2: REDUCTION AND TEMPORARY FIXATION

- **Approach:** Flex finger to 90° and make a small incision (2-3mm) over MCP joint. Identify dorsal third of the head for insertion.
- **Reduction:** Under fluoroscopy anatomically reduce the fracture. Select K-wire from sterile instrument kit. Insert the K-wire in the longitudinal axis of the distal fragment centred in the head in the coronal plane and the dorsal third in the sagittal plane. Ensure K-wire is seated to implant's final position.



STEP 3: CONFIRM LENGTH

- **Depth Gauge:** Using the sterile depth gauge, measure exposed K-wire length against markings. Ensure K-wire is seated to implant's final position. This indicates depth of insertion.



STEP 4: BONE PREPARATION

- **Insertion Tunnel:** Pass drill bit over K-wire, drill tunnel. Do not remove K-wire.
- If crossing the isthmus, drill bit should pass beyond it.



- **Metaphyseal Preparation:** Connect meta drill to handle from sterile instrument kit and pass over K-wire. Sink meta drill to the bottom of the black laser marking band. Sinking to the top of the band adds 2mm to the taper. Do not remove K-wire.

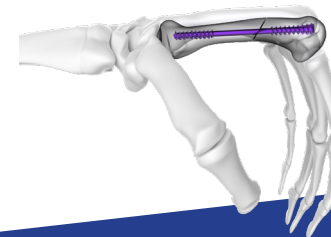


STEP 5: IMPLANT INSERTION

- Connect implant driver to handle from sterile instrument kit (AO connect). Push firmly to ensure the driver tip is fully seated in the implant head.
- Pass implant over K-wire and turn driver clockwise.
- When seating head, avoid distraction or rotating the fracture.
- If resistance is felt, check under fluoroscopy.



- **TIP:** If you encounter resistance either over-drill with the drill bit from the next size up (individually packed), taking care not to drill beyond the isthmus, or downsize and consider using a longer implant.



STEP 6: CLOSE

- Remove K-wire and close with preferred method.

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