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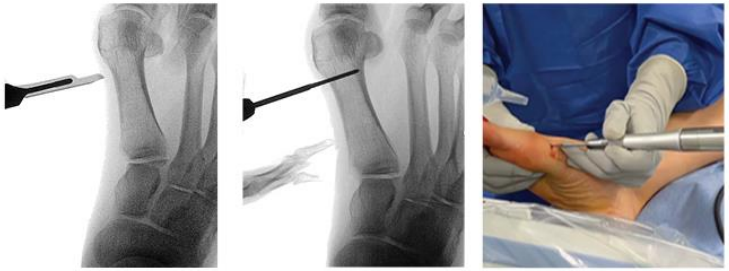
Percuplasty® Procedure

Key Steps Guide with Manual Instruments

TREACE A Step Ahead.™

Step 1: Metatarsal Osteotomy

Make a stab incision at the bottom of the metaphyseal flare. Angle 2x20mm Shannon burr 10-20 degrees distal to minimize shortening and confirm trajectory before crossing lateral cortex. Perform osteotomy with use of copious irrigation.

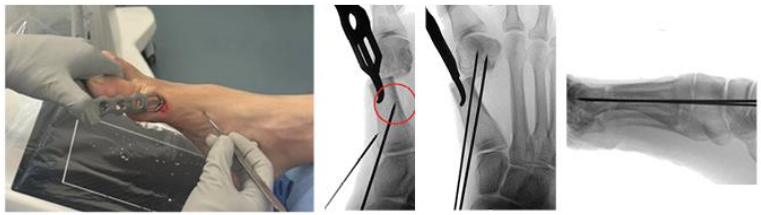


Step 2: Metatarsal Head Translation

Use Head Shifter (or Correction Pin) to translate the capital fragment laterally and pull the shaft medially to maximize the shift and tension the TMT joint. Apply varus moment force and rotate capital fragment as needed to establish joint congruity and reduce sesamoids while maintaining dorsal and plantar cortical alignment. Hold and maintain position until two wires are placed for stability.

Step 3: Wire Placement

Make stab insicions to allow for easier wire placement in desired bone position. Place proximal wire (1.6mm for 4.0mm screw) at the base of the metatarsal flare and cross the lateral cortex at least 10mm proximal to osteotomy. Use of AP and lateral fluoroscopy to confirm wire position prior to crossing lateral cortex will reduce risk of making multiple holes. The distal wire (1.4mm or 1.6mm depending on preferred screw diameter) is thrown with the optional assistance of the Parallel Pin Guide. Check head position, simulated WB and TMT stability.



Caution: Care must be taken to ensure the K-wire is placed a sufficient distance from the osteotomy site to avoid fracturing the bone.

Step 4: Screw Length Measurement

With the wires placed at the desired depth, place the Length Gauge over the wire and advance until the tip is contacting bone. Determine the appropriate length for both screws (~2mm may be subtracted if the length gauge is sitting proximal).

Note: Key Steps demonstrate 1st Metatarsal Distal Osteotomy and Akin Osteotomy Procedure.

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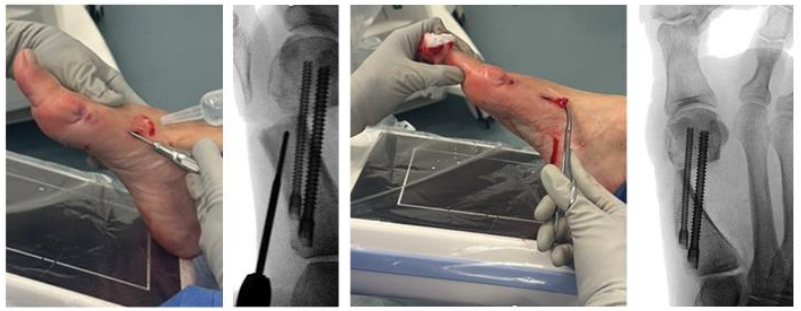
Step 5: Screw Placement

Overdrilling the wires is not necessary with self-drilling screws but may be performed if desired for dense bone. Place screws with power initially to avoid torquing on the bone and finish seating with a manual driver. The Screw Sleeve may be used to protect soft tissues during insertion. If the screw distracts the head, rotate it out of the head and readvance with counterpressure to maintain head position. Ensure the beveled head is flush against the bone and bury the distal screw head to avoid prominence.

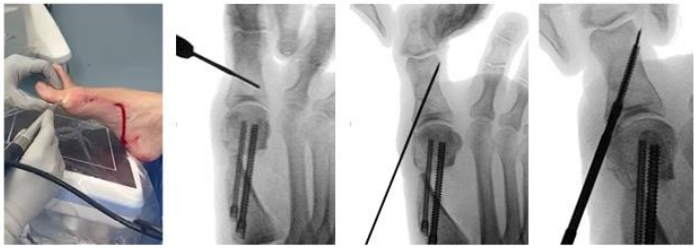
Step 6: Medial Spike Removal

Removing the medial spike enables foot width reduction and can be performed in multiple ways. Soft tissue elevation around the prominent bone helps to reduce the risk of nerve injury. A burr is commonly utilized to remove the spike and enable retrieval with a narrow rongeur through the distal or proximal incision.



Step 7: Akin Osteotomy

Perform angled or straight osteotomy of Hallux with 2x12mm Shannon burr, leaving lateral hinge intact with burr width creating the closing wedge. Hold reduction manually and place wire. Measure appropriate screw length and insert for permanent fixation. If the lateral cortex cracks, maintain a firm hold on the toe as the screw is advanced.



Step 8: Medial Eminence Resection (Optional)

Lift the capsule sharply off bone and use preferred burr to penetrate the eminence at the desired level of resection and sweep dorsal and plantar. Check simulated WB view on x-ray to ensure appropriate resection.

Final Correction

See Surgical Technique (LBL 1405-9095) & Instructions for Use (LBL 1405-9056) on treace.com for complete indications, contraindications, warnings, and precautions..

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