

Lapiplasty® Procedure

Key Steps & Fluoro Checks*

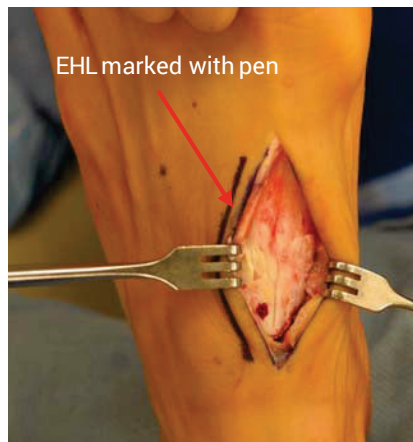
Items to request in addition to standard foot & ankle instrumentation:

- Straight ¼ inch osteotome
- Fluoroscopy (mini c-arm preferred)
- Pituitary rongeur
- Sagittal saw & wire driver

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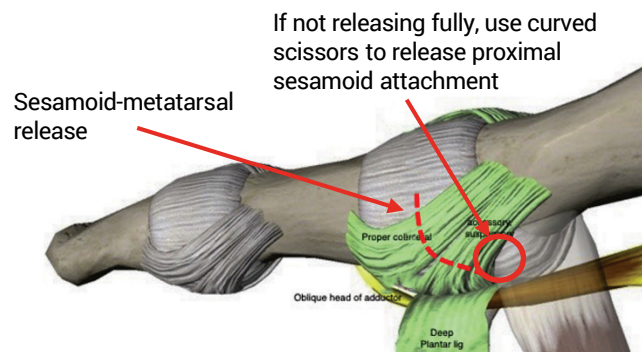
1. Direct Dorsal Incision

The 1st TMT incision must be made direct dorsal, from the proximal pole of Cun. to midshaft of MT, just medial to the EHL tendon.



2. Conservative Lateral Sesamoid-Metatarsal Release

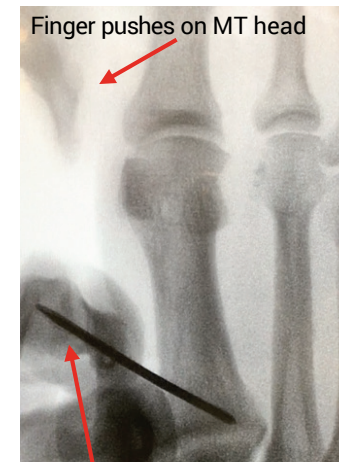
Check MTP joint for stiffness and sesamoid ankylosis. Perform a release of the lateral capsule and suspensory ligaments (not the deep intermetatarsal ligament). Manually manipulate toe in varus to fully release lateral capsule. **Do not perform a medial release at this time, it can destabilize the metatarsal-sesamoid complex.**



3. TMT Joint Release and Trial Manual Reduction

Use saw to plane TMT joint surfaces (lateral, medial, & plantar flare of MT), to "flatten" for rotation. Next use osteotome to work around joint, releasing capsule & plantar ligaments in "pie crusting" motion.

Perform a "trial manual reduction" - check on fluoro that MT can be fully rotated (with joystick pin) and IMA reduced applying minimal hand pressure on MT head. **Do not use Positioner until complete manual reduction can be demonstrated.**



Finger rotating MT pin (without bending or rotating foot)

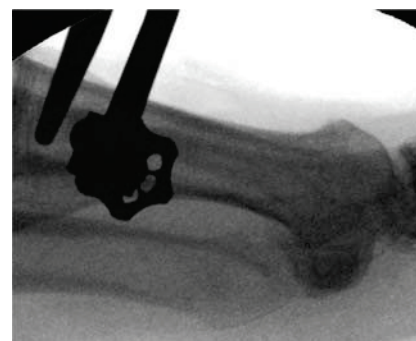
4. Fulcrum and Positioner Placement

Use freer or hemostat to create "pocket" at base of 1st & 2nd MT for the Fulcrum - **do not perform extensive dissection.** Place Fulcrum proximally, with its edge at TMT joint. Use 2.5mm Fulcrum as default, switching to 3.5/4.5mm for larger 1st & 2nd MT diastasis or when IMA is not fully reducing with Positioner.

Using Cut Guide as a reference (centered over TMT), make stab incision over 2nd MT ~2-3mm distal to Cut Guide tip. Use joystick pin to rotate MT (delivering medial ridge) and then tighten Positioner with only "two-finger" tightness. **Confirm correction on AP and LATERAL fluoros.**

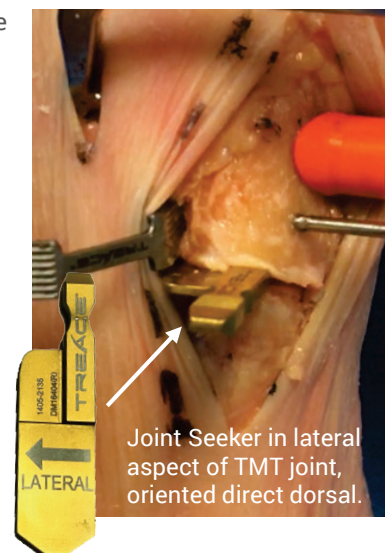


Note: On lateral fluoro, confirm MT is aligned in sagittal plane (i.e. not dorsiflexed). **It is critical to confirm that MT is aligned in all three planes prior to making cuts.**



5. Place Joint Seeker into TMT Joint

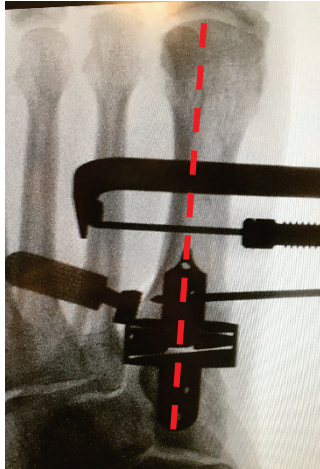
Drive the stabilizing k-wire through the Positioner cannulation into the 2nd MT. Place "keel" of Joint Seeker into lateral aspect of TMT joint, pressing it against the Fulcrum (or against 2nd MT). The top of Joint Seeker should be oriented direct dorsal (i.e. sticking straight up like the mast of a ship).



*See surgical technique (LBL 1405-9001) & instructions for use (LBL 1405-9005) on www.trace.com for complete indications, contraindications, warnings, and precautions.

6. Check Cut Guide Alignment (Prior to Pinning)

With Cut Guide applied over Joint Seeker, shoot a fluoro “down the gun sight” of Cut Guide, confirming orientation parallel with MT shaft (red dotted line). If not aligned with MT shaft, use finger pressure to adjust orientation of Cut Guide tip while pinning it.



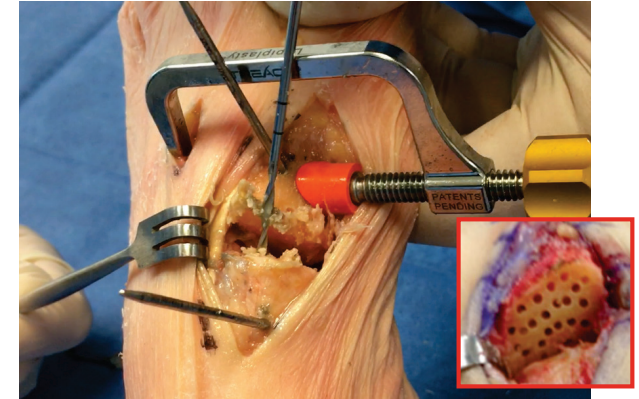
7. Check Cut Guide Alignment (After Pinning)

If necessary, use finger pressure on Cut Guide tip to adjust alignment. Pin proximal vertical hole, and two medial oriented holes (parallel pins). Remove Joint Seeker and take fluoro down the “gun sight” of Cut Guide – you should see right down the cut slots when view is “true”. **Confirm flat & even cut off MT base, and Cun. cut parallel with lesser TMT joints.** If adjustment needed, remove medial pins, insert Joint Seeker, and adjust Cut Guide.



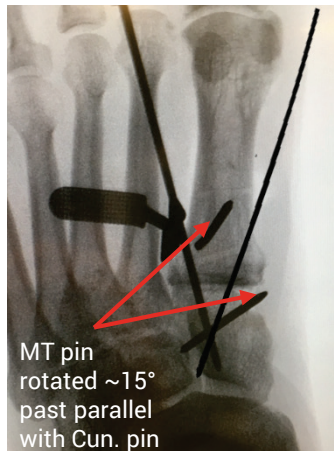
8. Fenestrate TMT Surfaces

Remove bone slices and all residual bone - **confirm on fluoro**. Next use straight 2mm drill, with optional drill sleeve, to aggressively fenestrate MT and Cun. subchondral bone surfaces (10+ holes per side). Leave bone debris in TMT joint to serve as bone graft. **Do not irrigate joint after fenestration.**



9. “Extra Rotation” & Provisional Fixation

Remove Positioner (if desired to leave on, loosen the bolt slightly). Add 10-15° “extra” rotation to MT (visualize MT pin relative to Cun. pin). Manually compress TMT joint. Drive threaded olive wire from dorsal lateral side of MT flare (starting approximately next to MT pin) into center of Cun. Confirm MT pin maintains over-rotated position. **Remove Positioner, and confirm correction on AP (looking down the joint line to see joint apposition) and LATERAL fluoro.** Drive a smooth k-wire across TMT from the medial side of MT to secure the correction (two points of fixation).



Note: The parallel pins serve as a reference in the sagittal plane to detect MT dorsiflexion or plantarflexion. If significant plantar gapping is present (pins pointing toward each other), back out provisional fixation, check for bone blocking compression, and re-fire olive wire.

10. Confirm Plate Positioning

Position dorsal plate across lateral half of TMT joint, centered over the joint. Check plate position on AP fluoro after pinning, ensuring screws will not be in intercuneiform joint. Apply medial plate (when using Plantar Python® Plate, pin distal end first). Confirm final fixation configuration on AP & LATERAL fluoros. Confirm that all screws are locked flush with the plates. **Do not remove threaded olive where until both plates are on.**

