Postoperative Care For EIP- EPL Tendon Transfer-- Dr. Trueblood

**Indications:** Closed ruptures of the EPL typically occur after closed fractures of the distal radius and result from segmental necrosis of the tendon within its fibro-osseous tunnel at the 3rd dorsal compartment. These injuries are not amenable to direct repair as the loss of tissue will leave the thumb unable to flex adequately at best and are prone to early failure at worst. Dr. Trueblood’s preferred treatment for these injuries is EIP-EPL tendon transfer.

**Technique:** A short, longitudinal incision is made over the index finger MCP and the EIP is identified as the ulnar, extrinsic extensor tendon. This is transected at the sagittal band and mobilized longitudinally using blunt dissection. A traction stitch is placed at the stump end and with tension, the EIP is identified at the distal edge of the extensor retinaculum. A short, transverse incision is placed at this site and blunt dissection exposes and then retrieves the EIP through the proximal incision. This is tunneled deep to the lateral antebrachial cutaneous and radial nerves to the base of the thumb where it is transferred to the EPL’s distal tendon with a 3-ply PulverTaft Weave. Tenodesis effect is tested to confirm appropriate tensioning of the transfer. The patient’s wounds are irrigated copiously and closed with 5-O chromic gut sutures. The patient’s wounds are dressed steriley with a forearm based thumb spica splint in digital extension.

**Postoperative Precautions:**
- Full time splinting.
- No lifting, pushing, or pulling with operative hand.
- Patient encouraged to not drive or operate heavy machinery.

**1st postoperative visit at 2 weeks after surgery--**
- Wound Assessment.
- Pain Assessment. Refill pain medications as needed.
- Therapy Prescription. Start Phase 1.
- Schedule Followup at 6 weeks after surgery.
- Work Note, if needed: No lifting, pushing, or pulling. <5# weight lifting in splint. Must wear splint. May type and write.
- Expected return to work:
  - Cognitive/ Sedentary: 3-4 days
  - Medium Labor: 6 weeks
  - Heavy labor 8-10 weeks.
Phase 1 Therapy (Protect transfer, motor retraining)
- Splinting: Forearm based thumb spica splint in palmar abduction. Wear at all times when not doing ROM therapy. Cut splint down to hand based at 4 weeks after surgery.
- ROM:
  - AROM/AAROM
  - Motor retraining
  - NO PROM
- No strengthening/ resisted activity.
- Modalities prn
- HEP

2nd office visit 6 weeks after surgery--
- Pain Assessment. Refill pain medications as needed.
- Therapy Prescription. Start Phase 2
- Schedule Followup at 12 weeks after surgery.
- Work Note, if needed: 20# weightlifting for 2 weeks, then unlimited weightbearing at 8 weeks after surgery.
- Expected return to work:
  - Cognitive/ Sedentary: 3-4 days
  - Medium Labor: 6 weeks
  - Heavy labor 8-10 weeks.

Phase 2 therapy (Regain full ROM and normalize functional use of hand)
- Splinting: Wean from splint as tolerated. Most patients will be out of their splint full time by weeks after surgery.
- ROM:
  - AROM/ PROM
  - Motor retraining. May used NEMS for motor retraining if needed.
- Strengthening:
  - Wrist and grip strengthening. Majority of therapeutic exercise comes from resuming normal, daily activities.
- Modalities prn
- HEP
  - Transition to HEP full time when patient has full, smooth range of motion without hesitation.

Final followup at 3 months after surgery--
- Functional assessment-- DASH score
- Work Note: no limitations
- Followup prn