Postoperative Care Following Lateral Collateral Ligament Repair vs. Reconstruction of the Elbow—Dr. Trueblood

**Indications:** Elbow ligaments tend to fail in order from the lateral side the medial side. Injuries of sufficient magnitude resulting dislocation. Others may be initially neglected right the patient as being trivial, but will continue to show posterior lateral elbow pain with rotation and portion secondary to rotatory instability. Surgery is indicated for patients with symptomatic posterior lateral rotatory subluxation of the elbow when it interferes with her activities of daily living or quality of life.

**Procedure:** Patient is taken to the operating room where they're positioned supine on the OR table with all bony prominences well padded. After routine surgical preparation, a Kocher -type skin incision is made over the posterolateral aspect of the distal humerus in continuity with the anconeus and the common extensor origin is partially reflected anteriorly to expose the radiocapitellar capsule. Capsulo-ligamentous attenuation is assessed and laxity confirmed. The radiocapitellar joint as an open and the joint inspected. The insertion site for the lateral ulnar collateral ligament is exposed at the level at the tip of the lateral condyle exposed at the ulnar seal's insertion. Graft is either harvested or thawed in the case of allograft. Two, convergent, 3.5 mm drill holes are then made in the olecranon bridging the supinator crest. A suture is passed through these 2 holes and grasped with a hemostat. The isometric point of origin for the LCL is then identified and a 3.5 mm pilot hole is then made at this site on the lateral epicondyle. Graft is then passed through these holes and secured using a #2 FiberWire docking technique after cycling the graft to ensure appropriate tension. The wound is irrigated and capsule is closed deep to the graft. The graft is then plicated and incorporated into remnant collateral ligament tissue to prevent posterior subluxation of the graft beneath the radial head. Additional plication of the graft limbs may be used to further optimize tension on the graft. The patient's bones are irrigated copiously with normal saline and the wound repaired in layers. The patient is placed into a sterile dressing with a well-padded, well molded, sugar tong splint. The patient is then discharged to the recovery area with plans for discharge to home on day of surgery.

**1st follow-up at 10-14 days after surgery--**

- Wound check. Remove stitches and apply steri-strips
- Pain assessment-- refill or adjust pain Rx as needed.
- x-rays in splint-- 4 views of elbow (AP, lat, oblique, and lateral in -30 degrees of extension).
- Hinged elbow brace in neutral. Allow AROM/ AAROM with gentle terminal stretching in elbow brace.
Therapy Rx
- Schedule follow-up at 6 weeks after surgery.
- Work note: No lifting/pushing/pulling. May not drive or operate medium+ machinery. May type and write.
- Expected return to work:
  - Sedentary/ cognitive: 1-2 weeks.
  - Light Manual: 6 weeks
  - Heavy Manual: 10-12 weeks.

Therapy Phase 1
- 1-2x/week x 4 weeks
- ROM
  - AROM/ AAROM with gentle terminal stretch for flexion in hinged elbow brace.
  - No pronation/ supination.
  - AROM/ PROM or shoulder, wrist, and hand.
- Light putty exercises to maintain grip
- Modalities prn.
- HEP-- transition to HEP if/when arc of motion is >10-130 degrees of flexion in splint.

--1st follow-up (maintenance of reduction) at 2 weeks--
- Wound check.
- Pain assessment-- refill or adjust pain Rx as needed.
- Therapy Rx. Advance to Phase 2.
- Follow-up at 12 weeks after surgery.
- Work note: No lifting/pushing/pulling. 10# weight lifting. May not drive or operate medium+ machinery. May type and write.
- Expected return to work:
  - Sedentary/ cognitive: 1-2 weeks.
  - Light Manual: 6 weeks
  - Heavy Manual: 12 weeks.

Therapy Weeks Phase 2
- 1-2x/week x 4 weeks
- Splinting: Wean from hinged brace as tolerated.
- AROM/ PROM of elbow.
  - If arc of motion is less than 30-130 degrees of flexion at 8 weeks, add static progressive splint in direction of maximal limitation.
    - Prioritize extension over flexion.
- Strengthening:
  - Continue light putty exercises to maintain grip, advance as tolerated.
Shoulder isometrics for RC and periscapular muscles. Advance to isotonic strengthening as tolerated (when isometrics are done with good control and no substitution).

- Add elbow/forearm strengthening at 8 weeks after surgery.

- Modalities prn.
- HEP when arc of motion is >10-140 degrees and strength is 80% contralateral side.
- Patients with unusually high demand occupations may benefit from work-conditioning. Please contact Leslie Hedge or Amy Calice at 573-388-3026 to arrange for referral when deemed appropriate.

Next visit at 12 weeks after surgery--
- Pain assessment-- refill or adjust pain Rx as needed.
- x-rays only if patient has persistent complaint.
- Therapy Rx: direct toward patient limitations. Again, consider work-conditioning for unusually high demand occupations.
- Work note: No restrictions.
- Expected return to work:
  - Sedentary/ cognitive: 1-2 weeks.
  - Light Manual: 6 weeks
  - Heavy Manual: 12 weeks.

Final follow-up at 3 months--
- Pain control- VAS
- DASH score
- Work Note
- MMI at 12 months after surgery.