Postoperative Treatment For Flexor Pollicis Longus Repair (Duran Protocol)—
Dr. Trueblood

**Indications:** Avulsion and sharp lacerations of the *flexor pollicis longus*, identified within three weeks of injury

**Technique:** The flexor to the thumb is exposed using incisions respecting lines of lowest tension to minimize postoperative scarring. The A1 pulley is released to improve exposure and the cut edges of the tendon are identified and freshened. A no-touch technique is then used to reapproximate the tendon margins and a running epitendinous stitch is started on the back wall using 6-0 prolene. A 4-strand core repair is then performed using 3-O Ethibond and the volar epitendinous stitch is completed. All knots are buried within the substance of the tendon. Wounds are then irrigated and closed using interrupted 5-O chromic gut stitches. Wounds are cleaned and dried and sterile dressing are applied. The patient is then placed into a dorsal block thumb spica splint with the wrist flexed 20 degrees, MCP flexed 30 degrees, and CMC in palmar abduction.

4-strand core stitch, buried knots
6-O prolene running epitendinous stitch.

**Postoperative Rehabilitation:**
3 days postop:

*Start hand therapy 2-3x/ week x 6 weeks*

- Splint: Transition to dorsal blocking thumb spica, fitted to be worn at all times.
  - Wrist: 20 degrees palmar flexion
  - Thumb MCP: 30 degrees flexed
  - IP: 30 degrees flexed
  - Thumb CMC: Palmar abduction
- PROM exercise program within the constraints of the splint to be performed for 25 repetitions each, every 2 hours throughout the day:
  - Independent passive flexion and extension of the MCP
  - Independent passive flexion and extension of the IP joints
  - Composite passive flexion and extension of the MCP and IP joints.

10-14 days:
- Start scar massage/mobilization. Sutures will self-d/c between 2 and 3 weeks after surgery. Please reassure patients as needed if stitches “fall out”.

Day 25
- Continue full time blocking splint
- Continue PROM exercise program
- Add AROM exercises within the constraints of the splint for 25 repetitions, 6-8 times/day

Day 28
- May start NMES as needed to facilitate FPL excursion
- Ultrasound appropriate, particularly with dense, adherent scars.

Day 32
- Continue Dorsal Blocking Splint at rest
- Start Unrestricted AROM exercises to thumb and wrist out of the splint, 25 repetitions at a time, 6-8 sets per day

Day 38
- Discontinue dorsal blocking splint.
- Emphasize unrestricted active and passive flexion and extension to thumb IP joint. Start blocking exercises.
- Night-time splint for resting position in palmar abduction, neutral wrist, and full MCP and IP active extension.

6 weeks postop (Day 42)
- Continue extending wrist and thumb resting splint to full passive extension, being careful to avoid hyperextending the MCP while addressing the IP.
- Wrist and thumb static splint adjusted into increased passive extension
  - If extension at IP is <30 degrees, start LMB –type spring splint for dynamic IP joint extension.

8 weeks postop:
- Start progressive strengthening. Patient to still avoid heavy lifting or attempting tight, prolonged pinching.

10 weeks postop:
- Start unrestricted strengthening. Patient may return to all activities without restriction.