



☐ Frisbie Memorial Hospital

☐ Marsh Brook Rehabilitation Services

☐ Wentworth-Douglass Hospital

## **CLINICAL PROTOCOL FOR EARLY PASSIVE MOBILIZATION PROGRAM EXTENSOR TENDON ZONE 5-6 (EPL 4-5)**

**PURPOSE:** "Applying controlled stress to the healing extensor tendon by promoting intrinsic healing... To encourage longitudinal reorientation of adhesions associated with extrinsic healing."

**FREQUENCY:** 1-3 times per week.

**DURATION:** Average estimate of formal treatment 1-3 times per week over 6-12 weeks based on Occupational Therapy evaluation findings.

**DOCUMENTATION:** Progress Note to physician at each follow-up appointment. Follow treatment calendar for daily requirements. Discharge Summary within 2 weeks of discharge.

### **VISIT ONE (3-5 DAYS POST-OP):**

#### **SPLINT:**

- Volar splint with wrist positioned at 40-45° dorsiflexion
- MP and IP at 0°; removable foam block at 30° used with exercise and at night
- Dorsal splint: Outrigger dynamic portion for day and remove at night
- Thumb (EPL) MP at 0° and IP with wedge at 60° (or within comfortable available range of motion)

#### **HOME EXERCISE PROGRAM:**

- 10-20 repetitions per waking hour
- Remove block and perform active flexion and dynamic passive extension via outrigger

### **1-2 WEEKS:**

#### **SPLINT:**

- Continue and adjust as appropriate

#### **HOME EXERCISE PROGRAM:**

- Continue as above

#### **THERAPY:**

- In-clinic wound care/scar management
- Edema control techniques
- Hygiene care

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**2 WEEKS:****SPLINT:**

- Continue as above

**HOME EXERCISE PROGRAM:**

- Add active hooks in splint – slide loops to proximal phalanx

**THERAPY:**

- Continue as above
- Add modified tenodesis (relaxed hand, fully extended wrist, and bring wrist to neutral with simultaneous finger extension)
- Controlled passive motion (with wrist and MP fully extended)
  - (a) Gentle passive range of motion to each IP joint
  - (b) MP flexed to 40° followed by simultaneous wrist flexion to 20°

**3 WEEKS:****SPLINT:**

- Continue as above.

**HOME EXERCISE PROGRAM:**

- Continue with dynamic assist program
- Active hook in splint
- Add active MP flexion and extension within the confines of the splint

**THERAPY:**

- Continue as above.
- Elastomer pad
- Ultrasound as indicated and full wrist tenodesis

**4 WEEKS:****SPLINT:**

- Continue as above
- At 4½ weeks, remold volar splint to MP and IP to 0° and discontinue dorsal splint

**HOME EXERCISE PROGRAM:**

- Out of splint active range of motion to include composite fist from hook position
- Intrinsic to composite and wrist range of motion

**THERAPY:**

- Continue as above.
- Fluidotherapy
- Modalities as indicated
- Wrist/Forearm range of motion
- Re-evaluate active range of motion measures for the first time (physician note)

**5 WEEKS:****SPLINT:**

- Remove for light activities/tasks and continue at night

**HOME EXERCISE PROGRAM:**

- Out of splint activities
- Continue with range of motion as above

**THERAPY:**

- Continue as above
- Functional activities

**6 WEEKS:****SPLINT:**

- Discontinue at night if full extension
- Light wrist strengthening as indicated

**HOME EXERCISE PROGRAM:**

- Continue as above

**THERAPY:**

- Scar management
- Range of motion exercises
- Functional tasks
- Light strengthening

**8 WEEKS:****SPLINT:**

- Discontinue splint

**HOME EXERCISE PROGRAM:**

- Continue as above

**THERAPY:**

- As indicated per re-evaluation findings
- Strengthening per physician recommendations

**REFERENCES:**

- 1) Evans, R.B. *Therapeutic Management of Extensor Tendon Injuries*, *Hand Clin* 2:157, 1986.
- 2) Hunter, Mackin, Callahan. *Rehabilitation of the Hand: Surgery and Therapy*, 5<sup>th</sup> Edition, Vol. 1. Evans, R.B. *An Update on Extensor Tendon and Tendon Management*, pg. 562-568.