



Frisbie Memorial Hospital

Marsh Brook Rehabilitation Services

Wentworth-Douglass Hospital

## **EXTENSOR TENDON – ZONE V-VI** **EARLY MOBILIZATION PROTOCOL**

**THEORY:** Early mobilization of extensor tendon helps to minimize adhesion formation as Zone V-VI injury is at the synovial level and, therefore, similar to Zone II flexor tendon injury.

### **PRECAUTIONS:**

- Requires patient cooperation – Contraindicated for young children or any confused patients.
- Only for tidy wounds with no evidence of infection.
- Early mobilization program must begin no later than the fourth post-operative day.

**FREQUENCY:** One to three times per week.

**DURATION:** Average estimate of formal treatment up to 12 visits over 8 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 two weeks of discharge.

### **\*\*TREATMENT GUIDELINES\*\***

#### **DAYS 2-4 POST REPAIR:**

##### Splint:

- Custom fabricated splint

##### Volar piece:

Wrist: 40–50 extension

Digits: 30–40 allowable MP flexion but with wedge supporting in full extension between exercises.

To be worn at all times – During the day, to be worn with dorsal piece.

##### Dorsal piece:

Wrist: 40 – 50 extension

Digits: dynamic traction to 0 MP and IP's

To be worn during the day to allow for exercises once extension wedge removed.

##### Clinical Program:

- Fabricate above splints and educate patient regarding use.
- Adjust splint as needed.
- Hygiene care.
- Patient education with emphasis on precautions.
- Apply coban as needed.
- Instruction and review of home exercise program for correct technique.

##### Home Exercise Program:

- Begin MP flexion exercises to volar block splint (IP's in extension). Splints and loops on.
- Begin gentle hooking exercises. Splints and loops on.
- The above exercises should be done X 10 repetitions every waking hour.

**BY 2 WEEKS POST-OP:**Splint:

- Continue as above.

Clinical Program:

- Continue as above.
- Hygiene.
- Individual digit MP flexion to splint with splints and loops on for differential tendon gliding. May need to do ring and long digits together due to the interconnection at the wrist level.
- Scar massage.
- Scar desensitization as needed.
- Edema control techniques as needed.

Home Exercise Program:

- Add the above individual digit exercise.
- Add scar massage.

**BY 3 WEEKS POST-OP:**Splint:

- Continue as above.

Clinical Program Add:

- Continue as above.
- Wrist tenodesis to 10 of wrist extension.

Home Exercise Program:

- Continue as above.
- Add the above clinical wrist exercises.

**BY 4 WEEKS POST-OP:**Splint:

- Continue wearing as above but make the following adjustments:
  - Increase the allowable MP flexion to 40-60°.

Clinical Program:

- Continue as above but now flex MP's to the splint allowance of 40-60° flexion.
- Moderate wrist flexion with approximately 50% composite finger flexion.

Home Exercise Program:

- Add the above clinical exercises.

**BY 5 WEEKS POST-OP:**Splint:

- Increase the allowable MP flexion to 70-80°.
- Out of splint for light, non-resistive ADL's.

Clinical Program:

- Continue as above.
- Full wrist flexion.
- Light simulated ADL's.

Home Exercise Program:

- Continue as above.
- Add the above new exercises and ADL's.

**BY 6 WEEKS POST-OP:**Splint:

- Out of splint except high risk activities.

Clinical Program:

- Continue as above.
- Add light wrist strengthening.

Home Exercise Program:

- Add above new exercises.

**BY 8 WEEKS POST-OP:**Splint:

- Discontinue splint use.

Clinical Program Add:

- Begin wrist and hand strengthening exercises.
- Discharge.

Home Exercise Program:

- Add new strengthening exercises listed above.
- Educate patient regarding independent upgrading of home exercise program.

**REFERENCES:**

Evans, RB. *An Update on Extensor Tendon Management*, In: Hunter JM, Mackin EJ, Callahan AD (eds)., *Rehabilitation of the Hand*, 4<sup>th</sup> ed. St. Louis, MO: Mosby, 1995: pg. 565-622.