

□ Frisbie Memorial Hospital

Marsh Brook Rehabilitation Services

□ Wentworth-Douglass Hospital

CLINICAL PROTOCOL FOR EXTENSOR TENDON EARLY MOBILIZATION

INDICATIONS: Laceration of EDC, EIP, EDM, Zone 5-6; EPL Zone 4-5.

<u>RATIONALE:</u> Minimize tendon adhesion by providing 5 mm passive tendon glides and reduce joint stiffness.

FREQUENCY: 2-3 times per week.

DURATION: Average estimate of formal treatment 2-3 times per week over 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 REPAIR):

- 1) Splint fabrication
 - Volar splint with wrist positioned at 40-45° dorsiflexion
 - MP foam block based on finger involvement:
 - Index/Long finger 28°
 - Ring finger 41°
 - Small finger 38°
 - > 5 mm tendon excursion
 - Thumb EPL 60° block and radial abduction
 - Dorsal outrigger dynamic portion for exercise.
- 2) Educate patient regarding tendon precautions, surgical procedure, full time splint wear, and treatment rationale.
- 3) Instruct patient in home exercise program
 - A) Independent donning/doffing of splint.
 - B) Active flexion of MPS to splint block, 10 repetitions each waking hour.

CLINICAL PROGRAM:

- 1) Review above exercises.
- 2) Splint adjustment as needed.
- 3) Check wound hygiene care.
- 4) Patient education with emphasis on precautions.
- 5) Edema control Coban as needed.

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WEEK 2:

• Continue with splint wear and exercise as previously, 10 repetitions each waking hour.

WEEK 3:

HOME EXERCISE PROGRAM:

- Scar massage, debridement, and desensitization.
- Continue with exercises while in splint for active flexion and passive extension.
- Initiate active in splint MP flexion to block and active extension (IPS extended).
- Slide loops back and hook in splint.

IN-CLINIC PROGRAM:

• Active hook (JPS) with MP and wrist extended protected position.

WEEK 4:

- Out of splint active composite fist graded from hook intrinsic to composite.
- Active wrist flexion gradually increases with fingers relaxed.

<u>SPLINT</u>: Discontinue dorsal piece – remold volar piece. Full MP and IP extension. Continue with splint while not exercising.

<u>RE-EVALUATION</u>: Measurement of active range of motion for first time.

WEEK 5:

- Active range of motion out of splint.
- Review precautions.

SPLINT: Out of splint for low risk activities.

WEEK 6:

• Discontinue splint.

WEEK 7:

Initiate blocking.

<u>WEEK 8:</u>

- Re-evaluate.
- Graded strengthening.
- Dynamic splint as needed.

WEEKS 10-12:

- BTE.
- No restrictions.

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, 5th Edition, Vol. 1. Evans, R.B. An Update on Extensor Tendon and Tendon Management, pg. 562-568.