



DR. BRIAN KLIKA & DR. ANDREW KIRKPATRICK
FLEXOR TENDON REPAIR ZONES 4-5 POST-OP THERAPY PROTOCOL

Phase 1 – Maximum Protection with Controlled Motion (3 days-3 weeks)

Goals for Phase 1	Precautions for Phase 1
• Immobilize and protect repair • Initiate distal ROM while protecting repair • Minimize risk of scar adhesions • Pain and edema control	• Dressings to be removed for ROM exercises to ensure tight composite passive flexion to maximize tendon excursion

Splint

- Dorsal blocking splint is fitted for continual wear in the following position:
 - Wrist: 20° extension, MP's: 45-60° flexion, IP's: full extension
 - Apply gutter splints as needed to maintain full extension unless there is a concomitant nerve repair
 - If there is a concomitant median or ulnar nerve repair, position the wrist in 30° of flexion or per nerve repair protocol

PROM

- Composite digit PROM exercises to be performed 4-5x/day, 25 repetitions, within the constraints of the splint

Edema Management

- Light compression with Coban or compression sleeves to digits, hand, and forearm
- Elevation
- Manual Edema Mobilization (MEM)

Wound Care

- Educate patient in dressing changes

Scar Management

- Begin scar massage no sooner than 2 days after suture removal and after scar is fully closed with no scabbing present. Begin with light massage using lotion.
- Educate patient in scar management
- Apply scar remodeling products as needed



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Phase 2 – Protect Repair with Controlled ROM (3-6 weeks)

Goals for Phase 2	Precautions for Phase 2
• Continue to protect healing repair while achieving adequate tendon excursion to prevent scar adhesions • Continue scar and edema control	• If there is a concomitant wrist level nerve repair, it is important to continue ROM within the restraints of the splint until 5 weeks for median nerve repairs and 6 weeks for ulnar nerve repairs

Splint

- Continue dorsal blocking splint at all times
- For nerve repairs that were initially splinted in 30 degrees of wrist flexion:
 - **4 weeks**: modify splint to 20 degrees of wrist flexion
 - **5 weeks**: modify splint to 10 degrees of wrist flexion
- A wrist and MP block splint may be fitted on the volar side of the DBS to isolate the IP joints with active flexion

ROM

- Continue phase 1 digit exercises
- **3 weeks**: initiate AROM within the restraints of the DBS (tendon gliding, intrinsic plus, abduction/adduction), initiate gentle pain-free tenodesis exercises outside of the splint (wrist flexion allowing slight digit extension, wrist extension with digits flexed)
- **4 weeks**: gentle PIP and DIP blocking exercises may be initiated
- **4 ½ weeks**: allow full active extension outside of the splint, emphasize differential tendon gliding and blocked PIP and DIP motion for maximum FDS and FDP tendon excursion

Scar Management

- Aggressive scar mobilizations may be necessary to stretch adhesions and promote tendon excursion



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Phase 3 – Restore Full ROM and Progress to Strengthening (6-12+ weeks)

Goals for Phase 3	Precautions for Phase 3
• Restore full active and passive range of motion while protecting the healing repair • Initiate strengthening • Return to functional activity	• Educate patient that a tight sustained grip with or without resistance greatly increases risk of tendon rupture. The patient should be using the hand for light activity only at home until 8-10 weeks

Splint

- Discontinue dorsal blocking splint
- For flexor tightness, a full extension resting splint may be added at night or dynamic extension splint during the day
- For median nerve repairs, it may be necessary to fabricate a c-bar web spacer splint for night wear to prevent webspace contracture
- For ulnar nerve repairs, it may be necessary to fabricate a RF/SF dorsal block splint to prevent clawing
- For both median and ulnar nerve repairs, a dorsal MP block splint will be necessary to prevent clawing of all digits

ROM

- Initiate composite PROM to wrist and digits
- Continue phase 2 active exercises with emphasis on differential tendon gliding

Strengthening

- **7 weeks:** begin progressive strengthening

Functional Activity

- Patient educated in resuming functional activities at home beginning with light use and over several weeks working up to heavier tasks

Work Conditioning

- After 12+ weeks and with physician consent, a comprehensive work conditioning program for patients with high demand/heavy manual labor occupations may be appropriate