BRIGHAM AND WOMEN'S HOSPITAL
A Teaching Affiliate of Harvard Medical School
75 Francis St. Boston, Massachusetts 02115

Department of Rehabilitation Services
Physical Therapy

The intent of this protocol is to provide the clinician with a guideline for the post-operative rehabilitation course of a patient that has undergone a flexor tendon repair. It is by no means intended to be a substitute for one's clinical decision-making regarding the progression of a patient's post-operative course based on their exam findings, individual progress, and/or presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient, they should consult with the referring surgeon.

Zones 2-5 Flexor tendon repair Protocol

Timeline	Splint	Therapeutic Exercise	Precautions	Other
Week 0-3	Dorsal Blocking Splint a. Wrist neutral b. MCP's 50° flexion c. IP's in full extension Reminder: If FDP of MF, RF, or SF repaired, must include all three digits in splint.	Home exercise program: 1. Passive composite full fist 2. Passive DIP extension maintaining MCP and PIP in flexion 3. Block MCP in full flexion and actively extend IP's 4. Passive DIP flexion and active extension 5. Passive PIP flexion and active extension 6. Isolated FDS glide of unaffected fingers 7. Passive (or gravity assisted) wrist flexion, followed by active extension to splint limits. Therapist performs with patient in clinic: 1. Remove splint: passive wrist extension with fingers flexed. 2. Passive wrist flexion with passive hook fisting to prevent intrinsic tightness **Early Active Motion Protocol:** *If cleared by MD **and** suture of adequate strength (four strand core repair with epitendinous suture augmentation). Reminders: Severe edema increases tendon drag and likelihood of rupture. Therefore, wait until 48-72 hours post-op prior to initiating ROM. Tensile strength of tendons decreases from days 5 to 15. Place/hold digital flexion with wrist extended in hook, straight and full fist positions.	No active flexion of involved digits unless cleared for early active motion (EAM). No passive wrist extension. No passive finger extension, except as noted above. No functional use of involved hand.	Wound care Edema control Scar massage Note: If pulley was repaired, may need pulley ring fabricated.

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Week 3	May initiate serial static PIP extension splints at night if needed.	Add place/hold if not yet done via EAM. 1. Place/hold for hook, full and straight fist with wrist extended. 2. Place hold for isolated FDS glide of involved digits.	Same as week 1-3 Place/hold exercises should be done with gentle tension only. Avoid muscle co-contraction by patient during place hold exercises.	
Week 4	Convert splint to hand based dorsal block splint.	Initiate active, non-resistive digital flexion and extension in all three fist positions with wrist extended.		Light prehensile activities OK in therapy.
Week 5	Discharge splint.	Add gentle blocking exercises for DIP/PIP flexion if needed.		Light prehensile activities OK at home.
Week 6	May initiate dynamic PIP extension splinting if needed.			May initiate NMES, therapeutic heating via ultrasound if needed.
Week 8		Gradually add resistive exercise to home program.		Functional use of hand, but consider strength, motion and sensory demands of task.

Reminder: Zone 5 injuries: Need to pay special attention to differential digit tendon glide (differentiating FDS and FDP tendons from one finger to another at the wrist level.)