



DR. BRIAN KLIKA & DR. ANDREW KIRKPATRICK
EXTENSOR TENDON REPAIR ZONES 7 & 8 POST-OP THERAPY PROTOCOL

Phase 1 – Early Protective Phase (3 days - 4 weeks)

Goals for Phase 1

- Immobilize and protect repair
- Initiate ROM of uninvolved joints while protecting repair
- Minimize risk of scar adhesions
- Pain and edema control

Splint

- A volar-based splint is fabricated with wrist in 20-30 degrees of extension and MP joints in full extension and IP joints free to be worn at all times
- If there is a notable extensor lag at the IP joints, it may be necessary to splint the digits in full extension until extensor lag resolves

ROM

- Active and passive ROM exercises to PIP and DIP joints within restraints of splint
- ROM to uninvolved joints as needed

Edema Management

- Light compression with Coban, elevation, and Manual Edema Mobilization (MEM) as needed

Wound Care

- Educate patient in dressing changes while adhering to surgical precautions

Scar Management

- Two days after suture removal, initiate scar mobilization and educate patient in scar management
- Apply scar remodeling products as needed



DR. BRIAN KLIKA & DR. ANDREW KIRKPATRICK
EXTENSOR TENDON REPAIR ZONES 7 & 8 POST-OP THERAPY PROTOCOL

Phase 2 – Initiate ROM While Protecting Repair (4-6 weeks)

Goals for Phase 2	Precautions for Phase 2
• Continue to protect healing repair while initiating gentle ROM • Continue scar and edema management	• If an extensor lag develops greater than 30 degrees, reduce frequency of exercises • If patient is unable to achieve full MP extension, adjust splint with a slight degree of wrist flexion. As active MP extension improves with greater wrist extension, the splint is adjusted into more extension accordingly

ROM

- Initiate AROM to wrist and digits 10 minutes each hour:
 - AROM to wrist and forearm in all planes of motion:
 - Include radial and ulnar deviation with wrist in varying degrees of flexion and extension and forearm pronation and supination to maximize tendon excursion
 - Composite and simultaneous digit and wrist flexion and extension for extrinsic stretching
 - AROM to digits:
 - Include composite flexion and extension of digits, opposition, abduction/adduction, and intrinsic plus
 - Isolated EDC exercises with IP joints taped in flexion
 - Full digit flexion and extension with varying degrees of wrist flexion and extension

Scar Management

- Aggressive scar mobilizations may be necessary to stretch adhesions including scar retraction with Dycem
- Continue with scar remodeling products as needed

Edema Management

- Edema glove and compression sleeve may be issued for persistent edema
- Manual Edema Mobilization (MEM) and elevation as needed

Modalities

- Heat modalities may facilitate tendon excursion and joint mobility
- Ultrasound may be initiated to improve effects of scar mobilization, minimize adherence, and facilitate tendon excursion. Consider ultrasound with simultaneous active stretching to reduce extrinsic extensor tightness.
- NMES may be used to enhance tendon excursion (especially useful to isolate EDC while taping IP joints in flexion)



**DR. BRIAN KLIKA & DR. ANDREW KIRKPATRICK
EXTENSOR TENDON REPAIR ZONES 7 & 8 POST-OP THERAPY PROTOCOL**

Phase 3 – Restore ROM and Strength (6-10+ weeks)

Goals for Phase 3

- Restore full active range of motion while protecting the healing repair
- Prevent and reduce extensor lags if present
- Wean from splint and return to functional use of involved hand

Splint

- Continue splint between exercise sessions and at night until week 7
- At 7 weeks, begin to gradually wean from splint by reducing wearing time by one hour each day so it is discontinued by week 9
- If there is an extensor lag, continue splint at night. If the lag is greater than 25 degrees, continue splint during the day between exercise sessions until resolved
- May consider taping or dynamic flexion splint to increase passive flexion if there is no extensor lag. Typically, ROM plateaus 12-14 weeks post-op.

ROM

- Initiate PROM to wrist and digits to resolve any extrinsic extensor tightness
- If there is an extensor lag, modify exercise program to emphasize active extension

Functional Activity

- At 7 weeks, begin light use of hand, and return to all functional activity by 8-10 weeks

Strengthening

- **Week 7**: initiate wrist and hand strengthening

Work Conditioning

- After 8-10 weeks, a comprehensive work conditioning program for patients with work duties that require repetitive gripping or heavy manual labor may be appropriate