



# ORTHOPEDICS & SPORTS MEDICINE

BAYCARE CLINIC®

## Dr. Klika & Dr. Kirkpatrick TFCC Repair

### Phase 1- Maximum Protective Phase- Weeks 0-6

#### Goals for phase 1

- Immobilize and protect reconstruction
- Pain and edema control
- Educate patient in home program and importance of wearing splint at all times
- Educate patient to return to clinic for splint adjustments as needed to ensure comfort and compliance with splint use.

#### Other considerations

- Patient will most often be referred to therapy for initial therapy visit after his/her 2-week follow-up with surgeon. This appointment consists of splint fabrication and patient education in ROM of uninvolved joints, edema management, scar management, and education in physical activity restrictions.
- Schedule a 4-week ROM check at this first appointment.

#### Orthosis

- Muenster splint- elbow at 90 degrees, wrist in slight extension, forearm in neutral
- To be worn at all times

#### ROM

- 2 weeks post-op: AROM to uninvolved joints (shoulder, elbow, digits)
- 4 weeks post-op wrist ROM check:
  - Wrist flexion/extension and radial/ulnar deviation is assessed only. Forearm rotation will not be assessed or initiated until 6 weeks post-op.
  - Begin therapy if patient has increased swelling and <50% range of motion. Therapy should begin with instruction in home program for wrist AAROM in gravity-eliminated positions 2x/day for 10-minute sessions with emphasis on slow and controlled pain-free movement.
  - If the patient has no issues with swelling and greater than 50% of normal range of motion, the patient is instructed to continue with splinting at all times and ROM is deferred to 6 weeks post-op.

#### Scar Management

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

#### Edema Management

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

#### Functional Activity

- Splint on at all times
- Use involved UE with non-resistive, light ADL/IADL only within limits of the splint.
- Wear splint for showering, but may remove for hand hygiene



## Phase 2 – Begin Range of Motion- Weeks 6 - 8

### Goals for phase 2

- Continue to protect healing repair while restoring pain-free AROM
- Continue pain, edema control, and scar management

### Orthosis

- 6 weeks: Transition to wrist hand orthosis. Patient may begin weaning from orthosis immediately from orthopedic visit however therapist may recommend weaning schedule variations as appropriate
- May issue a Wrist Widget support for ulnar wrist pain as patient weans from orthoses

### ROM

- Initiate gentle A/AAROM to wrist and forearm 6x/day for 10-minute sessions; begin with gravity eliminated positions and closed chain AAROM using small light weight ball and progress to open chain against gravity
- Continue with active and passive shoulder, elbow, digit ROM as appropriate

### Strengthening

- 7 weeks: Initiate submaximal pain-free isometrics for wrist and forearm

### Manual Therapy

- Continue phase 1 scar and edema management
- Desensitization

### Modalities

- Fluidotherapy for heat, ROM, and desensitization
- Paraffin may be used for deep heat

### Functional Activity

- Encouraged participation of involved UE in non-resistive ADL
- Wrist support/splint provided by MD to be worn with heavier ADL/IADL within physical activity restrictions



## Phase 3 – Maximize ROM and Initiate Strengthening- Weeks 8-10

### Goals for phase 3

- Restore functional pain-free range of motion
- Initiate isotonic strengthening
- Return to activities of daily living

### Other considerations

- PROM to forearm should be performed by securing at the forearm and not distal to the wrist to avoid torsional load on the TFCC
- Although PROM is indicated for joint and soft tissue restrictions, avoid painful ROM and stretching beyond a functional range of motion. The end goal of surgery is to stabilize the wrist for pain-free function.

### Orthosis

- Continue wrist hand orthosis with heavy activities

### ROM

- Continue active ROM to wrist and forearm
- Initiate pain-free PROM to wrist and forearm to restore functional motion

### Strengthening

- Initiate forearm, wrist and hand strengthening beginning with isometrics in the dart-throwing motion plane and progressing to isotonic in the dart-throwing motion plane
- Initiate isotonic strengthening including resistive wrist and forearm exercises using looped TheraBand (avoiding power grip with isotonic strengthening)
- Gentle grip strengthening with forearm supinated and pinch strengthening with putty
- Begin closed chain proprioceptive/stabilization exercises (example: rhythmic stabilization with patient's hand placed on ball) Progress to open chain proprioception/stabilization exercises (examples: marble in lid, labyrinth/phone games, wrist alphabet with light free weight, oscillation with Flex bar, gyrobball, body blade)
- Scapula stabilization and proximal upper extremity strengthening

### Manual Therapy

- Continue phase 1 scar and edema management
- Desensitization as needed

### Modalities

- Fluidotherapy for heat, ROM, and desensitization, as needed
- Paraffin may be used for deep heat, as needed

### Functional Activity

- Continued use of involved UE with ADL/IADL within physical activity restrictions
- Utilize wrist hand orthosis with heavier activities



## Phase 4 – Progress Strengthening and Return to Function- Weeks 10+

### Goals for phase 4

- Restore functional strength
- Return to work full duty

### Other considerations

- Patients returning to heavy labor jobs may benefit from continued wrist support use to prevent re-injury

### Orthosis

Continue wrist hand orthosis with heavy activities

### ROM

Maximize wrist and forearm ROM

### Manual Therapy

Continue scar and edema management as needed

### Strengthening

- Progress forearm, wrist, and hand strengthening
- Progress scapula stabilization and proximal UE strengthening

### Functional Activity

- Continued use of involved UE with ADL/IADL within physical activity restrictions
- Continue use of wrist hand orthosis with heavier activities

### Work Conditioning

After 10-12 weeks and with MD consent a comprehensive work conditioning program for patients with high demand / heavy manual labor occupations may be appropriate



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**References**

Cannon, Nancy M. et. al. Diagnosis and Treatment Manual for Physicians and Therapists, 5<sup>th</sup> Ed. The Hand Rehabilitation Center of Indiana. Indianapolis, Indiana. 2021.

This protocol was reviewed and updated by Brian Klika, MD, Lacey Jandrin, PA, Andrew Kirkpatrick, MD, Tiffany Terp, PA and the Hand Therapy Committee 8/9/2021.