



ORTHOPEDICS & SPORTS MEDICINE

BAYCARE CLINIC®

Dr. Klika & Dr. Kirkpatrick

DRUJ Reconstruction

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.
- Begin therapy if patient unable to make full composite flexion

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, digits)
 - Begin therapy if patient has increased swelling and/or inability to make composite flexion
 - If the patient has no issues with swelling and able to complete composite flexion the patient is instructed to continue splint at all times, with deferred therapy until week 4 for check-up on scar and edema

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 – 12

Goals for phase 2

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

Orthosis

- Transition to wrist hand orthosis. Patient may begin weaning from orthosis at 8 weeks post operatively.

ROM

- Initiate gentle active range of motion to wrist and forearm AROM 6x/day for 10-minute sessions; begin with 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

- 8 weeks
 - Gentle PROM may be initiated

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 12 to 16

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 DRUJ
- 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 AROM to wrist and forearm
- Pain-free PROM to wrist and forearm to restore functional motion

Strengthening

- Initiate forearm, wrist and hand strengthening beginning with isometrics and progressing to isotonic
- Initiate isotonic strengthening including resistive wrist and forearm exercises using looped TheraBand
- Gentle grip strengthening 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, gyroball, 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 16+

Goals for phase 4

- Restore functional strength
- Return to work full duty
- Restore ROM to 85% of pre-surgical ROM at 6 months

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

- Begin aggressive PROM
- Maximize wrist and forearm ROM to 85% of pre-surgical range by 6 months post operatively

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

Work Conditioning

After 16 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

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Lawler E, Adams BD. Reconstruction for DRUJ Instability. Hand 2007; 2:123-126.

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.