TFCC Peripheral Tear-Surgical Repair

This protocol is intended to provide the clinician with a guideline for the postoperative rehabilitation course of a patient who has undergone ***TFCC Repair***. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, comorbidities, pre-surgical range of motion, strength, health/functional status, rehabilitation compliance, learning barriers and complications. Specific time frames, restrictions and precautions are given to protect healing tissues and surgical reconstruction.

May be open repair or arthroscopic. If open, incision made to visualize distal EDM and ECU tendons. Dorsal DRUJ ligament is retracted. For small tears, direct repair is performed, along with debridement. Large tears require suturing of the TFCC to the ulnar fovea, passing through a drill hole in the ulna. Typically, percutaneous K-wires or suture anchors are placed to stabilize the forearm in neutral.

Postoperative Guidelines

Surgical Indication

- Lesions to peripheral TFCC
- Instability of DRUJ
- Chronic ulnocarpal pain

Return to Work

The timeline for returning to work can vary depending on the type of work performed, various accommodations that may be available within your work environment, and any postoperative complications. Your surgeon will discuss the timeline for returning to work after consideration of these factors.

Overall goals of surgery: pain-free, stable, functional wrist.

TFCC Repair

Phase I (7-14 days after surgery)

Rehabilitation appointments	• Physician appointment at 10-14 days post op • One Rehabilitation appointment immediately following physician 10-14 days post op appt.
Rehabilitation goals and priorities	• Instruct on post-operative precautions • Protect in custom orthosis • Instruct on wound healing / pin care • One-handed Activities of daily living (ADLs)
Suggested therapeutic exercises	• AROM to shoulder and thumb • Tendon gliding for fingers • Edema management • Scar mobilization once incisions fully healed
Precautions	• No forearm or wrist ROM • No lifting/pushing/pulling
Orthoses	• Custom muenster orthosis positioning wrist and forearm in neutral • If K-wires placed-they will dictate position of forearm • Orders may indicate specific forearm position

TFCC Repair

Phase II (3-4 weeks post-operative)

Rehabilitation appointments	• Once a week
Rehabilitation goals and priorities	• Protect in custom orthosis
Suggested therapeutic exercises	**For Dr. Kruse and Dr. Tofte patients: Wait to start wrist AROM until 6 weeks** **At 4 Weeks post op:** Dr. Zachary, Dr. Israel, Dr. Salypongse, Dr. Michelotti, and Dr. Gander: • Gentle short arc AROM for wrist, limiting to mid-range (less than 45 degrees of flexion or extension until week 6), **while forearm in neutral or supination** (to decrease axial load through ulna). • 3-4 times per day, 25 slow repetitions • Use of heat prior to exercises • Continue scar and edema management
Precautions	• No forearm ROM • No lifting/pushing/pulling
Orthosis	• Custom muenster • Orthosis off for hygiene, but no use of hand without orthosis in place

TFCC Repair

Phase III (6 weeks post-operative)

Rehabilitation appointments	• Depending on pain and ROM, frequency varies from twice per week to twice per month
Rehabilitation goals and priorities	• Encourage light functional use of hand in orthosis
Suggested therapeutic exercises	**Dr. Kruse and Dr. Tofte patients: Begin AROM wrist flexion and extension (as described above).** Dr. Zachary, Dr. Israel, Dr. Salyapongse, Dr. Michelotti, and Dr. Gander: 6 weeks: • Progress to AAROM for wrist flexion/extension, held at end range for 30 seconds • Add gentle forearm rotation, initially from full supination to neutral. 3-4 times per day, 25 slow repetitions 7 weeks: • If patient is having difficulties with active forearm rotation, best to have the patient start working toward forearm supination while the elbow is fully flexed. This position promotes proximal / dorsal translation of the radius for increased forearm rotation. Conversely, forearm pronation is best facilitated with elbow extension. • Continue scar management
Precautions	• No lifting/pushing/pulling
Orthosis	• Out of Muenster Orthosis • Custom or Off-the-shelf wrist-hand orthosis (eg: Titan)

	• Orthosis off for hygiene and ROM

TFCC Repair

Phase IV (8-10 weeks post-operative)

Rehabilitation appointments	• Depending on pain and ROM, frequency varies from twice per week to twice per month
Rehabilitation goals and priorities	• Functional, pain-free AROM for forearm and wrist • Progress PROM
Suggested therapeutic exercises	**For Dr. Kruse and Dr. Tofte patients: Wait to start gentle AROM for forearm rotation until 12 weeks.** Dr. Zachary, Dr. Israel, Dr. Salyapongse, Dr. Michelotti, and Dr. Gander: 8 weeks: • Instruct on self-ROM for forearm rotation, stabilizing ulna proximal to wrist and rotating/translating radius (NO TORQUE AT WRIST!). 30 second holds, several times per day. 9 weeks: • PROM for forearm and wrist as needed
Precautions	• No sports until 12 weeks • No resistance during forearm rotation except isometrics in neutral
Orthosis	• Dr. Kruse: Wrist cock up until 12 weeks post op • 8 weeks: Gradually starting weaning from wrist orthosis during the day, starting with light activity. Continue at night. • 9 weeks: If wrist flexion limited, consider static progressive wrist flexion orthosis, 2-3 times per day, 30-minute intervals.

	• If forearm rotation is limited, consider static progressive or dynamic orthosis (with MD approval).

TFCC Repair

Phase V (11-12 weeks post-operative)

Rehabilitation appointments	• 2-4 times per month
Rehabilitation goals and priorities	• Gradual increase in strength
Suggested therapeutic exercises	**For Dr. Kruse patients: Wait to start gentle AROM for forearm until 12 weeks** Dr. Zachary, Dr. Israel, Dr. Salyapongse, Dr. Michelotti, and Dr. Gander: • Hand strengthening with forearm in supination: hand exerciser with rubber bands or resistive putty • Light weights for elbow and wrist, incrementally increased • Only isometrics in neutral position for forearm strengthening (no torque at wrist!) • Defer from exercises with ulnar deviation
Precautions	• No sports until 12 weeks • No resistance during forearm rotation except isometrics in neutral • Recommend avoidance of compression and distraction exercises upon return to the gym (push-ups, chin-ups).
Orthosis	• 12 weeks: Discontinue orthosis, except during heavy activities (such as those returning to manual labor).

References

1 Cannon, N. M. (2020). *Diagnosis and treatment manual for physicians & therapists: Upper extremity treatment guidelines*. Hand Rehabilitation Center of Indiana.

2 Kleinman, W. (2007) Stability of the distal radioulna joint: biomechanics, pathophysiology, physical diagnosis, and restoration of function. What we have learned in 25 years. *Journal of Hand Surgery, 32(7),* 1086-1106.

3 Demino, C., Morales-Restrepo, A., Fowler, J. (2019). Surgical management of triangular fibrocartilage complex lesions: a review of outcomes. *Journal of Hand Surgery,* Online 1(1), 32-38.

These rehabilitation guidelines were developed collaboratively between UW Health and UnityPoint Health - Meriter Rehabilitation and the UW Health Orthopedic Surgeons.