

Extensor Tendon Repair Zones VII, VIII

Rehabilitation Protocol

Kelly Holtkamp, M.D.

Please fax initial evaluation and progress notes to 815-381-7498.

1-3 Days Postoperative

- Do not remove surgical bandage.
- Restrictions: No heavy lifting or pulling greater than 0 lbs.

3 – 5 Days Postoperative

- The therapist will remove the surgical bandage.
- The therapist will fabricate a MP joint block orthosis including the wrist and forearm. The wrist is positioned in 30 degrees of extension and MP joints in full extension.
- The orthosis is to be worn at all times. The orthosis may be removed for hygiene purposes and to perform the exercise program.
- The therapist will instruct proper skin care to prevent skin breakdown. The skin should be completely dry before re-applying the orthosis.
- Instruct the patient to begin active and passive range of motion exercises to the PIP and DIP joints of the digits within the restraints of the orthosis.
- Educate the patient on anti-edema management. This includes, but not limited to, self-retrograde massage, cold therapy, and extremity elevation. The anti-edema management will continue for several weeks.

10 – 14 Days Postoperative

- The sutures are removed at Dr. Holtkamp's office.

3 Weeks Postoperative

- The therapist will begin scar tissue management to decrease sensitivity and density, which could include ultrasound and/or silicone gel pads per therapist discretion. The scar tissue management will continue for several weeks.

4 Weeks Postoperative

- Instruct the patient to begin active range of motion exercises to the wrist and digits. The exercises should be performed for 25 repetitions every 2 hours.
- The following exercises are included in the plan of care. Additional exercises may be necessary per the therapist's discretion.
 - Positioning the wrist in varying degrees of flexion and extension while attempting full digital extension and flexion.
 - Active flexion of the digits followed by active wrist flexion to reduce extrinsic extensor tightness
 - Isolated EDC exercises with the IP joints taped into flexion to maximize excursion of the EDC.
 - Composite active flexion and extension of the digits.

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- The wrist and MP block orthosis is continued between exercise sessions and when sleeping.
- NMES may be initiated as necessary to enhance tendon excursion. It is particularly beneficial to tape the IP joints into flexion and isolate MP extension while using NMES.
- Ultrasound may be added to the therapy as a deep heating modality to enhance the elasticity of the underlying adhesions and scar. Ultrasound has proven to be beneficial for the dense adhesions along the dorsum of the wrist and hand.

5 – 6 Weeks Postoperative

- For patients with isolated wrist extensor repairs (ECRL, ECRB, ECU): Instruct the patient to begin passive range of motion exercises.

6 Weeks Postoperative

- Instruct the patient to begin passive flexion exercises to the wrist and digits.
- If necessary, taping, static or dynamic progressive orthoses are initiated to increase the composite passive flexion of the digits.
- The wrist and MP block orthosis is continued between exercise sessions and when sleeping.

7 Weeks Postoperative

- The wearing time in the wrist and MP block orthosis should be gradually reduced 1-2 hours each day. It is expected that the patient is completely out of the orthosis within 7-10 days.
- If there is a MP joint contracture, the therapist may fabricate a dynamic flexion orthosis to increase the range of motion. It is important to watch for the development of an extensor lag and reduce the dynamic orthosis if an extensor lag develops. The therapist will recommend the frequency and duration of the dynamic flexion orthosis.

8 Weeks Postoperative

- Instruct the patient to begin a progressive strengthening exercise program for the hand and wrist.

10 Weeks Postoperative

- It is not unusual to continue composite dynamic flexion splinting to resolve extrinsic extensor tightness for up to 6 months or longer.
- Instruct the patient to continue their home exercise program for range of motion and strengthening.
- If the patient has not achieved functional range of motion and strength, then continue with occupational therapy for an additional 2-4 weeks.

12 – 14 Weeks Postoperative

- The patient may resume normal activities of daily living as tolerated.
- Work status: The patient is allowed to return to full duty status if the job requirements have been met. If not met, then a functional capacity evaluation and work hardening program may be recommended.

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- The healing process can take up to a full year. Therefore, it is advised to continue with the home exercise program until goals have been met.

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