



FLEXOR TENDON REPAIR

Basics:

- Rehab treatment dictated by number of core sutures
 - 2 core sutures:
 - prom for 4 weeks, then add active motion at 4 weeks
 - 4-6 core sutures (**Pappas**):
 - prom for 4 weeks, and add *place and hold active exercises* at 3-7 days with physician approval

Splint:

- Dorsal blocking splint with padding:
 - wrist in 15° flexion, MP's in 50-70° flexion, and PIP's and DIP's in full extension
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Treatment Protocols (Zones I-III):

- 2 core sutures:
 - Duran Protocol:
 - NO rubber bands used; passive MP flexion & extension, passive PIP flexion & extension, passive DIP flexion & extension within the constraints of the dorsal blocking splint for 4 weeks
 - NO active muscle contraction of repaired tendons until 4 weeks with 2 strand repair
 - physician approval for passive IP extension
 - keep MP joints and wrist in flexion initially
 - Initiate scar massage 48 hours after suture removal
- 4-6 core sutures (Pappas)
 - Indiana Protocol – uses additional splint for place and hold exercise (refer to protocol from Indiana Hand Center for specifics)
 - *place and hold exercises technique:*
 - have patient passively place digits in composite flexion, then gently contract FDP and FDS to hold in this position (n.b. used with physician approval)
 - initiate at 3-7 days post-op

Treatment Protocols (Zones III-V):

- Keep in initial dorsal blocking splint x 1 week, then change & start place and hold exercises

Timeline for all flexor tendon repairs regardless of core suture number & zone:

4 weeks:

- add gentle active motion & active tenodesis exercises
- no use in ADLs until 4 ½ weeks – light functional use only
- may use static volar resting splint to gradually increase IP extension
- no full wrist and finger active extension until 6 weeks
- continue with edema/scar management; passive flexion stretching

6 Weeks:

- add active range of motion blocking exercises and blocking splint; light use in ADLs
- saline iontophoresis; scar management

8 Weeks:

- Add soft foam for light resistance
- upgrade use in ADLs with appropriate resistance
- ultrasound, electrical stimulation, dynamic splinting

10 Weeks:

- Add soft putty

12 Weeks:

- Return to full activities without restrictions

Special Considerations:

- Physician approval for place & hold exercises and passive extension exercises
- Volar resting splint at 4 weeks to gradually increase extension
- Full composite wrist and finger active extension at 6 weeks, with resistance (as pushups) at 12 weeks
- Saline iontophoresis at 6 weeks
- Ultrasound, electrical stimulation, dynamic splinting at 8 weeks

FPL:

Splint:

- Dorsal splint with padding – wrist in 15° Flexion, thumb in abduction and opposition, thumb MP in flexion, thumb IP in extension

Treatment:

- Follow treatment and exercise guidelines for FDP and FDS as stated above
- If using Kleinert program, rubber band traction to ulnar wrist area with strap to stabilize MP joint and allow IP extension

Special Considerations:

Follow special considerations as stated above for FDP and FDS repair