

Dr. Schmidt

Palmar Fasciectomy for Dupuytren's Contracture

Phase 1 – Maximum Protection 3 days - 2 weeks

Goals for phase 1

- Pain and edema management
- Wound care
- Patient education on HEP
- Fit with nighttime orthosis and initiate gentle motion

Orthosis

- Forearm based volar extension orthosis with wrist in slight extension and digits in full extension is fitted for night wear only
- Educate patient that orthosis is to be worn at night for 6 months post-op

ROM

Gentle A/AA/PROM

- Composite digit flexion, composite digit extension, digit abduction/adduction, tendon glides, opposition, isolated MP extension
- Wrist ROM in all planes
- Home exercise program to be performed 6x/day, 10-minute sessions

Functional Activity

Patient allowed to use the involved hand for light functional activities if wound remains clean and dry

Edema Management

Educate patient on edema management techniques including elevation, use of edema glove, light manual edema mobilization, and overhead active hand pumping

Wound Care

Sterile dressing changes are performed every 2-3 days. Dressing changes may need to be performed more frequently if there is significant drainage to prevent maceration. If there is a nice moist wound bed, cover wound with Xeroform. If the wound is macerated use an oil emulsion dressing like Adaptec or other absorbent dressing.

Other Considerations:

It is important to avoid aggressive and prolonged tension on digits to prevent a flare reaction which often occurs at 2-3 weeks post-op. Progress to phase 2 of protocol when swelling and pain is minimal.

Phase 2 – Restore Range of Motion 2 – 6 weeks

Goals for phase 2

- Manage scar and minimize adhesions
- Resolve pain and swelling
- Restore full end-range motion in all digits and wrist

Orthosis

- Continue volar orthosis at night only
- Dorsal PIP extension orthoses may be beneficial to resolve contractures

ROM

- 2-3 weeks: Progress to more aggressive end range active and passive ROM to all joints, intrinsic stretching, reverse blocking, and blocked DIP flexion exercises to stretch the oblique retinacular ligament (ORL)

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.
- 3+ weeks: When scar is completely healed, an aggressive scar management program should be initiated including use of scar remodeling products, ultrasound, and instrument-assisted soft tissue mobilization (IASTM)
- Paper tape may be placed longitudinally along scar during the day to assist in prevention of hypertrophic scarring. Instruct the patient in reapplying throughout the day as needed when dirty or after hand washing.

Criteria for progression to Phase 3

ROM may be difficult to maintain during the 3–4-week time period because of the proliferative phase of soft tissue healing and scar maturation, thus home exercises may need to be done hourly and therapy frequency may need to increase to 3x/week

Modalities

- Use moist heat as needed to improve scar mobility and joint range of motion
- Use ultrasound as needed to improve scar mobility
- Functional Electrical Stimulation (FES) may be used to facilitate range of motion

Strengthening

4-6 weeks: Initiate strengthening beginning with isometrics and progressing to putty exercises

Phase 3 – Restore Strength and Functionality 6+ weeks

Goals for phase 3

- Continue to restore full range of motion in wrist and hand
- Continue to minimize scar adhesions
- Restore strength in involved wrist and hand and return to full functional use
- Return to work

Other Considerations:

Gel padded gloves may improve comfort during heavy lifting, racquet sports and use of tools that vibrate

Orthosis

- Continue hand-based volar extension orthosis at night for 6 months
- Continue with dorsal PIP extension orthoses to reduce contractures as needed

Continue with phase 2 edema and scar management and maximize active and passive range of motion

Strengthening

- Progressive strengthening to forearm, wrist and hand using free weights and resistive putty or hand exercisers as needed
- After 8-10 weeks and with MD consent a comprehensive work conditioning program for patients with high demand / heavy manual labor occupations may be appropriate

References

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