Therapeutic Management of PIP Joint Contractures
Conservative vs. Surgical

Conservative Flexion Contracture Protocol:

For Contracture in the Proliferative Phase of Healing
  Weeks 2-10
  May use Static Progressive Splinting or Dynamic Splinting

   • Use splint 10 hours per 24 hours
   • Splint types include custom, Capener, LMB type splints

For Contracture in the Chronic Phase of Healing
  Weeks 8+
  May use Static Progressive Splinting

   • Use splint 10 hours per 24 hours.

Note: Patients with longer history of contracture generally have increased joint stiffness and are less likely to resolve with conservative management. Statistical analysis has shown that splinting time (Total End Range Time) both in hours (average of 10) and total months (average of 4) was the only statistically significant factor affecting outcome.
Post Operative Protocol: Extensor Tenolysis, PIP Capsulectomy, PIP debridement, Lateral Band Mobilization and Realignment

1 Day Post Op
- Hand-Based Dorsal Blocking splint PIP extension blocked at 30. Active flexion
- Edema mgmt, wound care
  - Tendon glides, PIP/DIP blocking flexion within splint, extension to splint 6-8 sessions/day

2 Weeks Post Op
- Continue splinting and exercise, add gentle passive flexion PIP
- Scar mgmt after suture removal

3 Weeks Post Op
- Discharge dorsal block during the day, move to oval 8 holding in 20 flexion
- Add DIP splint for FDS pull through during exercise

4 Weeks Post Op
- Continue Oval 8 blocked at 10, add MP extension block splint (like anti-claw)

5-6 Weeks Post Op
- Continue all AROM, PROM flexion, add gentle PROM extension, reverse blocking splint for PIP
- Oval 8 moved to block at 0 extension
- Continue oval 8 wear and MP ext block wear

7 Weeks Post Op
- light putty exercises (FDS strengthening, full fist strengthening)
- continue oval 8 and MP ext block wear

8-12 Weeks Post Op
- A/AA/PROM flex/ext PIP
- Scar mgmt
- Edema mgmt
- Strengthening
References:

Feldscher, S. Postoperative Management for PIP Joint Pyrocarbon Arthroplasty, J Hand Ther. 2009


Prosser, R. Splinting in the Management of Proximal Interphalangeal Joint Flexion Contracture, J Hand Ther. 1996