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## **Flexor Tendon Repair - Place and Hold (Strickland/Cannon)**

This is an "active-hold" or "place-hold active mobilization" protocol. The digits are passively placed in flexion, and the patient then maintains the flexion with a gentle muscle contraction. Patients learn to use only minimal force by practicing with the uninjured hand and also use biofeedback to monitor the strength of contraction (less than 10 mV on a Cyborg unit).

### **Early Stage 3-5 days**

The postoperative dressing is removed. A light dressing and edema control are applied as needed.

***Splint.*** Two different splints may be used as necessary and as per therapist discretion. A dorsal blocking splint is worn most of the time, with the wrist at 20 degrees of flexion and MP joints at 50 degrees. The exercise splint has a hinged wrist, allowing full wrist flexion, but wrist extension is limited to 30 degrees. Full digit flexion and full IP extension are allowed, but MP extension is limited to 60 degrees.

***Exercise.*** Every hour, patients perform the Strickland version of modified Duran exercises (15 repetitions of PROM to the PIP and DIP joints and the entire digit) in the dorsal blocking splint, followed by 25 repetitions of place-hold digit flexion in the tenodesis splint. The patient extends the wrist actively with simultaneous passive digit flexion and actively maintains digit flexion for 5 seconds. The patient then relaxes and allows the wrist to flex and digits to extend within the limits of the splint.

**\*\*Alternate option:** Instead of making a hinged splint, at the therapist's discretion, the patient can use only the dorsal block splint and come out of it only during supervised sessions with the therapist to perform place-hold exercises.

### **Intermediate Stage (4 weeks)**

***Splint.*** Tenodesis splint is discontinued. Patient still wears dorsal blocking splint except for tenodesis exercises.



**Exercise.** The tenodesis exercises continue every 2 hours with 25 repetitions followed by 25 repetitions of active flexion and extension exercise for wrist and digits, avoiding simultaneous wrist and digit extension. FDS gliding also may be added. At 5 to 6 weeks, blocking and hook fists may be added if needed to improve tendon gliding.

**Late Stage (8 weeks)**

**Splint.** All splints are discontinued.

**Exercise.** Progressive resistive exercise is initiated. The patient gradually resumes activities of daily living. FPL is moved more aggressively than digit flexors (putty exercises are initiated by 7-8 weeks), and flexors to the small finger are moved the least aggressively.

At 12 weeks, may gradually return to heavier lifting with full use of hand, including sports, by 14 weeks

Please call with questions or concerns at the phone number above.