ORTHOPEDICS & SPORTS MEDICINE
BAYCARE CLINIC

# Dr. Klika & Dr. Kirkpatrick
# Carpal Tunnel Release
### Endoscopic and Open Technique

## Phase 1: Early Protective Phase 0-3 weeks

**Goals for Phase 1:**

- Immobilize and protect surgical site
- Restore full wrist and hand ROM
- Minimize risk of scar adhesions
- Pain and edema control

**Other considerations**

Pillar pain along the thenar or hypothenar area may be present during initial 3 months following surgery. Gripping, and firm pressure along the palm can cause pain. As post-operative edema subsides, typically pillar pain will also subside.

**Splint**

A prefabricated wrist control splint to be worn for 6 weeks except for hygiene

**Wound care**

- Light dressing applied as needed

**Edema Management**

- Light compression with compression sleeves to thumb, hand and forearm as needed after incision healed
- Elevation
- Manual Edema Mobilization (MEM)

**ROM**

AROM 4-6x/day including flexor tendon glides, isolated blocking to the FDS and FDP, thumb opposition and wrist all planes of motion

**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.
- Educate patient in scar management
- Apply scar remodeling products as needed

**Manual Therapy**

- Desensitization – begin with light pressure and soft fabrics and progress to deeper pressure and coarse textures
- Median nerve glides

**Modalities**

- Ultrasound for scar management
- Heat modalities to progress ROM

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# Phase 2: Intermediate / Late Phase 3+ weeks

**Goals for phase 2:**

- Initiate progressive strengthening
- Develop home exercise program
- Educate patient to prevent recurrence of symptoms
- Gradually return to full functional use of involved arm

**Other considerations**

- Strengthening is not initiated if significant pain or moderate amounts of edema persist.
- No lifting greater than 5#
- Educate patient in reducing risk of recurrence.
  - avoid repetitive use of wrist
  - avoid using high-frequency vibration tools
  - ergonomic education and workplace modification
  - AE training such as anti-vibration gloves may be necessary
  - frequent stretching and breaking up repetitive tasks

**Splint**

Continue prefabricated wrist hand orthosis until 6 weeks post-op except with hygiene

**ROM**

- Continue phase 1 ROM exercises until WNL
- Gentle intrinsic stretching as needed
- Median nerve glides as needed

**Manual Therapy**

- Continue scar management techniques
- Continue desensitization as needed
- Median nerve glides

**Strengthening**

- Initiate strengthening initiated with foam blocks or putty no more than 5-minute sessions 3-5x/day. Educate patient in slow, sub-maximal pain-free gripping and pinching exercises.
- 4-6 Weeks –
  - If strength is severely limited and/or patient requires significant strength in their job, progress to stronger putty or an exerciser with extra padding to avoid discomfort.
  - Initiate forearm and wrist isotonic strengthening
  - Postural strengthening

**Modalities**

Continue with ultrasound for scar management and heat modalities to progress ROM if it has not progressed to WNL for patient

**Functional Activity**

- **6 weeks --** Patient education completed to reduce chance of recurrence of symptoms. Education on proper body mechanics and ergonomics should be vended to patient.
- **8 weeks –** gradually return to functional use of the involved hand for higher level work and home management tasks.
- **10 weeks –** patient may return to unrestricted use of the hand with MD permission.

**Work Conditioning**

After 10 weeks and with MD consent a comprehensive work conditioning program for patients with high demand / heavy manual labor occupations may be appropriate

This protocol was reviewed and updated by Brian Klika, MD, Lacey Jandrin, PA, Andrew Kirkpatrick, MD, Tiffany Terp, PA and the Hand Therapy Committee 8/9/2021.