



## Radial Nerve Repair Therapy Instructions Laith Al-Shihabi, MD

### **2-4 weeks**

If nerve repair was performed along with extensor tendon repairs, follow the tendon repair protocol with the exception of the below-noted splint modifications. This protocol is meant for radial nerve repairs performed in isolation.

#### Splint:

- Fashion a long-arm posterior mold splint holding the elbow at 90 degrees, wrist in 30 degrees of extension, MP joints in 20 degrees of flexion, and IP joints free. Also include a thumb spica portion holding the thumb in radial and palmar abduction with the MP in neutral.
- Depending on therapist and patient preference, splint can also be fashioned with a dorsal outrigger holding the thumb and finger MP joints in neutral using elastic slings instead of static flexion blocks.
- Wear splint full-time except when performing therapy exercises.

#### Motion:

- Begin active and passive flexion and extension range of motion exercises to the fingers, along with active and passive wrist extension, and active, but not passive, wrist flexion. Emphasize passive stretching for motor deficits.
- Perform active and passive elbow flexion, along with active, but not passive, elbow extension.
- Motion exercises should be performed hourly within the splint at home.

#### Edema Control:

Edema modalities per therapist.

### **4-8+ weeks**

Initiate manual desensitization and sensory re-education as needed. Therapy visits may be resumed after this time frame as needed for sensory re-education. Emphasize sensory precautions for anesthetic skin.

#### Splint:

- Re-cut splints to be short-arm only. If wrist extension is preserved, a hand-based splint can be used. Continue use of splints with rest or while sleeping until nerve motor recovery occurs.

#### Motion:

- Continue above motion exercises.
- Ok to begin passive wrist flexion and elbow extension at 4 weeks.
- Transition to home program at 6-8 weeks.

#### Edema Control:

Per therapist.