



Sports & Orthopaedic Specialists

Ulnar Nerve Transposition Protocol

This protocol provides appropriate guidelines for the rehabilitation of patients after ulnar nerve transposition. The protocol draws evidence from the current literature and accounts for preferences of the providers at Sports & Orthopaedic Specialists. The program may be modified by the referring provider for an individual patient. If questions arise regarding the utilization of the protocol or the progress of the patient, contact Sports & Orthopaedic Specialists:

Main line: (952) 946-9777

Physical therapy: (952) 914-8631

PRECAUTIONS

Avoid neural tension through ulnar nerve bed for 8 weeks.

PT FREQUENCY & DURATION

-Six to ten physical therapy visits over 4-6 months

REHAB PRINCIPLES

-Focus on active engagement of the patient through patient education and therapeutic exercise. Establish a home exercise program that can be progressed throughout the postoperative period.

-Respect tissue healing. The surgeons at Sports & Orthopaedic Specialists uniformly prefer a slow progression of postop patients with minimal postoperative pain.

-Postoperative pain may be experienced however physical therapy, including the home exercise program, should result in minimal to no symptom exacerbation. The patient should call the PT for recommendations if pain increases during or after exercise.

-The therapeutic exercises listed in this protocol convey the appropriate load for the elbow given the time elapsed since surgery in regards to tissue healing. It is acceptable for a patient to progress more slowly. However, it is not acceptable for a patient to progress more quickly unless directly indicated by the physician.

-Recommend max of 6 exercises for home exercise program. Select a well-rounded program that targets each area of insufficiency identified during physical exam.

MODALITIES

Cold Therapy / Ice: Instruct patient to use ice daily until pain free or 8 weeks after surgery.

Other Modalities: **DO NOT USE**

- | | |
|----------------|-----------------|
| -Ultrasound | -Infrared laser |
| -Phonophoresis | -NMES/TENS |
| -Iontophoresis | -Hot packs |

ULNAR NERVE TRANSPOSITION



MANUAL THERAPY

- No passive range of motion (physiologic/long arc).
- Joint mobilization to address posterior shoulder hypomobility **after 12 weeks ONLY if prescribed by surgeon**
- Soft tissue techniques to upper trapezius/levator scapula/pect minor are permitted

THERAPEUTIC ACTIVITY AND PATIENT EDUCATION

Patient education is very important in getting the patient to take an active role in therapy and recovery. Educate the patient at the appropriate level regarding:

- Anatomy of the elbow and upper quarter
- Basics of surgical procedure in layman's terms
- Surgical precautions
- Elbow & shoulder girdle mechanics: Typical and pathomechanical
- The inhibitory effect of pain
- Avoidance of pain provoking activities
- Throwing mechanics

THERAPEUTIC EXERCISE

-Free Weights: Use the following age guidelines to establish a maximum weight for proximal (rotator cuff) strength/conditioning ONLY when the protocol calls for the use of free weights.

For patients aged 40+:

Progress from two ounces to four, then a max of eight ounces for rotator cuff strength/conditioning.

For patients under 40 years old:

Progress from two ounces to four, then eight ounces. A max of 16 ounces can be used for rotator cuff strength/conditioning.

-Exercise Band: **DO NOT USE**

The use of Yellow Theraband®, the least resistive color in the Theraband series, results in 2.9 pounds of resistance when elongated by 100%. In addition, length-tension principles of muscle function do not align with exercise band properties; the muscle is asked to provide maximum force at a shortened and inefficient length. Therefore, exercise band use is not permitted for use during rotator cuff conditioning.

-Pulleys: **DO NOT USE**

ULNAR NERVE TRANSPOSITION



WEEK 1

- Patient receives postop instructions after surgery that include:
- Wear postop posterior splint at 90 degrees elbow flexion with wrist free for motion
- Compression dressing
- AROM of the wrist and hand
- Shoulder isometrics

WEEK 2

- Remove posterior splint for exercise and bathing
- Progress elbow ROM (AAROM 15-120 degrees)
- Initiate elbow and wrist isometrics,
- Wear postop posterior splint at 90 degrees elbow flexion with wrist free for motion
- Compression dressing
- AROM of the wrist and hand
- Continue shoulder isometrics

WEEK 3-6

- Discontinue posterior splint
- Progress elbow ROM. Emphasize full extension.
- Initiate flexibility exercises for:
 - Posterior shoulder
 - Elbow extension & flexion
 - Wrist extension & flexion
 - Forearm supination & pronation
- Initiate strengthening exercises for:
 - Elbow extension & flexion
 - Wrist extension & flexion
 - Forearm supination & pronation
 - Shoulder program

ULNAR NERVE TRANSPOSITION



WEEK 7

- Continue all exercises listed above
- Initiate light sports activities when cleared by surgeon

WEEK 8

- Initiate eccentric exercise program
- Continue shoulder and elbow strengthening
- Continue flexibility exercises
- Initiate interval throwing program when cleared by surgeon

WEEK 12

- Return to competitive throwing when cleared by surgeon