



## **Day Twelve: Elbow, Forearm, Wrist, and Hand / Counseling Strategies to Enhance Self-efficacy**

### Content Summary

- Clinical reasoning principles – strategies to improve self-efficacy and prevent the progression toward disablement
- Elbow, forearm, wrist and hand anatomy as it relates pain, muscle power, and mobility deficits
- Interpret elbow, forearm, wrist and hand clinical findings consistent with the ICF-based clinical guidelines
- Manual therapy to address elbow, forearm, wrist and hand soft tissue, joint, and nerve mobility deficits
- Therapeutic exercises to address relevant elbow, forearm, wrist and hand mobility, muscle power, coordination, sensory, and pain impairments

### Knowledge to Review/Acquire Prior to Class

1. CPG Interactive Learning Module: Carpal Tunnel Syndrome
2. CPG-related Procedure Options – Wrist & Hand Labs – Handout & Videos 4.1, 4.2, 4.3, and 4.4
3. PhysioU app – Orthopaedics:
  - Lateral epicondylgia/Lateral elbow pain with muscle power deficits
  - Carpal tunnel syndrome/Hand sensory deficits
4. PhysioU app – Exercise Patterns:
  - Elbow pain and power deficits/Tennis elbow-elbow epicondylitis
    - Elbow, Forearm, and Wrist strengthening
  - Elbow and forearm radiating pain/Peripheral entrapment neuropathy
    - Upper limb nerve mobility exercises
  - Wrist pain and sensory deficits/Carpal tunnel syndrome
    - Upper limb and Thorax mobility exercises
    - Neck and Chest stretching exercises

### Selected References

Erickson M, Lawrence M, Jansen CW, Coker D, Amadio P, Cleary C. Hand pain and sensory deficits: Carpal tunnel syndrome: Clinical practice guidelines linked to the international classification of functioning, disability and health from the academy of hand and upper extremity physical therapy and the academy of orthopaedic physical therapy of the American physical therapy association. *J Ortho Sports Phys Ther.* 2019;49(5):CPG1-85.

## Procedure Focus

### Manual Resistive Tests:

- Extensor Carpi Radialis Brevis and ECRL
- Abductor Pollicis Brevis
- 1st Dorsal Interosseous
- Abductor Pollicis Longus
- Extensor Pollicis Brevis

### Provocation Examination:

- Elbow Extensor Tendons: ECRB & ECRL
- Carpal Tunnel
- Guyon's Tunnel
- deQuervain's related Tendons: APL and EPB
- Finkelstein's Test

### Ligament Integrity Tests:

- Elbow Valgus Stress Test
- 1st MP Valgus Stress Test

### Accessory Movement Tests:

- Ulnar Distraction
- Radial Posterior Glide
- Radial Anterior Glide
- Radial Distraction
- Distal Radioulnar Joint
- Ulnomeniscotriquetral Joints
- Radiocarpal Joints
- Intercarpal Joints
- Ulnar Anterior & Posterior Glides

### Manual Therapy:

- Elbow Flexion MWMs
- Elbow Extension MWMs
- Ulnar Distraction
- Radial Posterior Glide
- Radial Anterior Glide
- Forearm Pronation MWMs
- Ulnar Anterior Glide
- Ulnar Posterior Glide
- Wrist Extension MWMs
- Radial Distraction
- Scaphoid/Radius Glides
- Lunate/Radius Glides
- Proximal Carpal Row Ulnar Glides
- Proximal Carpal Row Ulnar Glides
- Scaphoid/Lunate Volar Glides
- Hamate or Capitate Volar Glides
- Intercarpal Dorsal/Volar Glides
- Interphalangeal MWMs
- Phalanx Volar Glides
- Phalanx Dorsal Glides