

2026

Guidelines-based Diagnosis and Treatment of Common Musculoskeletal Disorders

Session 4 - Shoulder, Elbow, Wrist, and Hand

Shoulder Girdle / Shoulder Pain - diagnosis and management

Shoulder / Management of Movement Coordination Impairments

Elbow, Forearm, Wrist, and Hand / Counseling Strategies to Enhance Selfefficacy

Seminar Content Outline

The objective of this seminar series is to train residents and clinicians participating in continuing professional development in the skills required to implement the APTA Orthopedics Clinical Practice Guidelines at a high level. In essence, it will be 12 days of fast-paced, high-level skill-building.

<u>Pre-Seminar Knowledge and Testing Requirements</u>

In my role as the APTA Orthopedics Associate for Practice Guidelines Implementation, I collaborated with an APTA Orthopedics vendor partner, PhysioU, to develop a learning management system featuring interactive learning modules, digital decision trees, foundational educational presentations, procedure videos, and handouts based on our Clinical Practice Guidelines for Common Musculoskeletal Conditions. This LMS and PhysioU's Ortho PT-related apps — including Exercise Patterns — offer comprehensive insights into CPG implementation strategies.

For each day in the attached Seminar Content Outline, the "Knowledge to Review/Acquire Prior to Class" section provides the LMS and app materials to review. These materials include CPG Interactive Learning Modules, which have multiple test items embedded in the modules. Participants need to score 80% on these test items to pass each CPG module. If the participant scores less than 80%, they can retake that module.

It is expected that every seminar participant will complete the learning module on the CPGs covered in class on that day, before arriving at class.

All APTA Orthopaedics members receive free access to the APTA Orthopedics /PhysioU Practice Guideline Package as part of their membership benefits.

For non-members, the cost to access the Practice Guideline Package for 12 months is \$200. The AOPT Vendor Partners, such as PhysioU, share revenue from these products derived from the AOPT's CPG with the AOPT to help sustain the development, revision, and dissemination of the CPGs. To access the LMS, use the following link: https://clinicalpattern.com/aopt-practice-guidance/

Rationale for Pre-Seminar Knowledge Requirements

This seminar series will utilize a "flipped" classroom design to optimize the use of in-person, hands-on psychomotor coaching and clinical reasoning training. Essentially, the knowledge gained from (1) DPT entry-level education and the CPG-related Foundational Educational Presentations, (2) the LMS's CPG Interactive Learning Modules, and (3) the CPG-related apps (e.g., Exercise Patterns) forms the foundation for skill acquisition.

The seminar instructors expect all participants to have this foundational *knowledge* when they enter the classroom. On the first day, the instructors will train *skills* based on that knowledge level and will continue to do so throughout the 12 days of the seminar. The LMS also features integrative decision trees, handouts summarizing the content, and videos of the procedures covered in the seminars, which can serve as recall and practice tools for participants.

Feel free to contact me or other members of our Academy.

Joe Godges DPT

Guidelines-based Diagnosis and Treatment of Common Musculoskeletal Disorders

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Day Ten: Shoulder Girdle / Shoulder Pain - diagnosis and management

Content Summary

- Movement analysis and reeducation for reaching activities
- Shoulder anatomy and evidence as it relates to shoulder pain, radiating pain, and mobility deficits
- Interpret shoulder and arm clinical findings consistent with the ICF-based clinical guidelines
- Manual therapy to address shoulder joint, muscle, and nerve mobility impairments
- Therapeutic exercises for glenohumeral mobility and upper limb nerve mobility deficits

Knowledge to Review/Acquire Prior to Class

- 1. Foundations of Guidelines-based MSK Care: Scapular Movements Foundational Kinesiology
- 2. CPG Interactive Learning Module: Shoulder Adhesive Capsulitis
- 3. CPG-related Procedure Options Shoulder & Elbow Labs Handout & Videos 3.1, 3.2, and 3.3
- 4. Exercise Patterns: Shoulder pain with mobility deficits Shoulder stretching exercises

Shoulder pain and power deficits – Scapular and shoulder strengthening exercises

Selected References

Kelley MJ, Shaffer MA, Kuhn JE, Michener LA, Seitz AL, Uhl TL, Godges JJ, McClure PW. Shoulder pain and mobility deficits: adhesive capsulitis - clinical practice guidelines linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association. *J Orthop Sports Phys Ther*. 2013;43(5): A1-A31.

Godges JJ, Matson-Bell M, Thorpe D. The immediate effects of soft tissue mobilization with proprioceptive neuromuscular facilitation on glenohumeral external rotation and overhead reach. *J Ortho Sports Phys Ther.* 2003;33:713-718.

Johnson A, Godges JJ, Zimmerman G. The effect of anterior versus posterior glide joint mobilization on external rotation range of motion of patients with shoulder adhesive capsulitis. *J Orthop Sports Phys Ther*. 2007;37:88-99.

Procedure Focus

Movement Analysis

Shoulder girdle positional symmetry

Scapulothoracic and glenohumeral rhythm with overhead reaching

Examination

Acromioclavicular Accessory Movement Tests: Anterior/Posterior Glides

Sternoclavicular Accessory Movement Tests

Median Nerve Tension/Stretch Test

Radial Nerve Tension/Stretch Test

Ulnar Nerve Tension/Stretch Test

Muscle Length Tests:

Pectoralis Minor & Major

Latissimus Dorsi & Teres Major

Subscapularis

Glenohumeral Mobility: External Rotation, Internal Rotation, Flexion, Horizontal Adduction

Soft Tissue Mobilization / Joint Mobilization / Manual Stretching

Anterior Chest

Subscapularis

Latissimus Dorsi & Teres Major

Shoulder External Rotators / Posterior Cuff & Lateral Capsule

Glenohumeral Posterior Glide

Glenohumeral Inferior Glide

Exercise Training

Shoulder Stretching

Scapular Strengthening

Shoulder/Rotator Cuff Strengthening

Upper Limb Nerve Mobility Training

Day Eleven: Shoulder / Shoulder pain - management of movement coordination impairments

Content Summary

- Review and refine movement analysis and manual procedures practiced on day ten
- Shoulder anatomy and evidence as it relates to shoulder pain, muscle power, and mobility deficits
- Interpret shoulder and arm clinical findings consistent with the ICF-based clinical guidelines
- Manual therapy to address elbow mobility impairments
- Therapeutic exercises for shoulder and elbow muscle power, stability, and movement coordination impairments
- Review of mid thoracic, upper thoracic, mid cervical, and upper cervical manipulative procedures

Knowledge to Review/Acquire Prior to Class

- 1. Foundations of Guidelines-based MSK Care: Tissue Tolerance Dosing of Movement Intensity
- 2. CPG-related Procedure Options Shoulder & Elbow Labs Handout & Videos 3.4, 3.5, and 3.6
- 3. Exercise Patterns: Performance progression Upper extremity

Selected References

Desmeules F, Roy JS, Lafrance S, Charron M, Dubé MO, Dupuis F., Beneciuk JM, Grimes J, Kim HM, Lamontagne M, McCreesh K, Shanley E, Vukobrat T, Michener LA. Rotator cuff tendinopathy diagnosis, non-surgical medical care and rehabilitation: a clinical practice guideline. *J Orthop Sports Phys Ther.* 2025;55(4):235-274.

Procedure Focus

Movement Analysis

Shoulder girdle positional symmetry

Scapulothoracic and glenohumeral rhythm with overhead reaching

Examination

Supraspinatus/Infraspinatus/Biceps Brachii Manual Resistive Tests

Supraspinatus/Infraspinatus/Biceps Tendon Palpation/Provocation

Glenohumeral ROM Examination

Glenohumeral Accessory Movement Tests: Posterior & Anterior & Inferior Glides

Manual Therapy

Shoulder Elevation Mobilization with Movement

Internal Rotation Mobilization with Movement

Review of Soft Tissue Mobilization Procedures from Day Ten

Humeral Posterior Glide at 90° of Shoulder Flexion

Exercise Training

Shoulder Rotational, Flexion, and Abduction Stretching

Shoulder/Rotator Cuff Strengthening

Upper limb / Upper quarter performance progression

APTA Orthopedics 12

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. Foundations of Guidelines-based MSK Care: Prevention and Treatment of Common Musculoskeletal Disorders Causes, Compensations, Complications
- 2. CPG Interactive Learning Module: Lateral Elbow Pain and Muscle Function Impairments Carpal Tunnel Syndrome
- 3. CPG-related Procedure Options Wrist & Hand Labs Handout & Videos 4.1, 4.2, 4.3, and 4.4
- 4. 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

<u>Ligament Integrity Tests:</u>

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