



## **Day Three: Lumbar Manipulation / Low Back Pain - diagnosis and management**

### Content Summary

- Review and refine movement analysis and manual procedures practiced on day two
- Lumbar spine anatomy and evidence as it relates to disc and nerve related disorders
- Review/integrate trunk/pelvis/hip movement analysis and reeducation for functional activities
- Discussion on somatic, referred, and radicular low back pain
- Refinement of lumbar manipulative procedures
- Identification of risk for low back-related long-term chronic pain and disability

### Knowledge to Review/Acquire Prior to Class

1. CPG Interactive Learning Modules: Low Back Pain w/ Related (Referred) Lower Extremity Pain  
Low Back Pain with Radiating Pain
2. CPG-related Procedure Options – Low Back Labs – Handout & Videos 5.5 and 5.8
3. PhysioU app – Orthopaedics: Lumbar disc disorder with lower extremity referred pain  
Sciatica
4. PhysioU app – Exercise Patterns:  
Back pain with related leg pain – Lateral shift & LB Extension exercises  
Back pain with radiating pain – Back, hamstring, & nerve mobility ex's, Hip ER/Piriformis stretching

### Selected References

George SZ. Characteristics of patients with lower extremity symptoms treated with slump stretching: a case series. *J Ortho Sports Phys Ther.* 2002;32:391-398.

O'Neill CW, Kurgansky ME, Derby R, Ryan DP. Disc stimulation and patterns of referred pain. *Spine.* 2002;27:2776-81.

## Procedure Focus

Movement Analysis - Motor Control, Strength, & Endurance

Trunk Flexors/Abdominals

Trunk Sidebenders/Lateral Abdominals

Trunk Extensors/Erector Spinae

Trunk Rotators/Multifidi-Transverse Abdominis-Internal/External Obliques

Examination Procedures

Repeated Movements Examination

Sciatic Nerve Tension Testing

Lower Quarter Neurological Status Exam

Slump Test

Manual Therapy

Soft Tissue Mobilization

Thoracolumbar Fascia

Multifidi/Segmental Myofascia

Psoas

Spinal Mobilization/Manipulation

Lateral Shift Correction

Lumbopelvic Region Manipulation

Lumbar Sidebending/Rotation in Neutral

Lumbar Sidebending/Rotation in Extension

Lumbar Sidebending/Rotation in Flexion

PAs in Combined Movements - Extension

PAs in Combined Movements - Flexion

Exercise Training

Trunk Motor Control, Strength, and Endurance Training