



## Chiropractic BioPhysics

CBP—The Science of Spinal Health

### March 1 – 2, 2024

## Module 5. CBP® Lumbar Rehab

- Course Title:** CBP Structural Rehabilitation of the Lumbar Spine
- Instructors:** Dr. Deed Harrison, Dr. Joe Ferrantelli, Dr. Donald Meyer, Dr. Jason Jaeger, Dr. Joe Betz
- Course Objective:** This course provides an integrated education for the Doctor of Chiropractic in the science and art of lumbo-pelvic disorders. Detailed literature reviews covering the crisis of lumbar disorders in patient populations, the role of spinal manipulative therapy and structural correction of sagittal lumbar lordosis will be covered. Normal average and ideal values for the lumbar lordosis will be reviewed as well the relationship of lumbar curvatures to patient health and disease conditions. Detailed categories of lumbo-pelvic postures, spine kinematics and abnormalities of the sagittal lumbar lordosis will be learned. The Chiropractor will learn appropriate application and timing of postural and functional exercises for the lumbar spine designed to correct spinal subluxation and strengthen the lower back tissues. The Chiropractor will be introduced to 17 categories of sagittal lumbar traction and 5 methods of coronal lumbar traction with demonstrations for structural rehabilitation of the lumbar spine. Indications and contraindications to these new structural rehabilitation procedures will be reviewed. The details of case management using these structural rehabilitation methods will be covered using a variety of case studies for a comprehensive picture of clinical application of this course material. A survey of research material will be reviewed supporting the utilization and efficacy of CBP technique structural rehabilitation treatment methods across a population of patients with chronic pain conditions.

**Total Hours:** 12

### **Friday**

**2pm – 4pm**

#### **Structural Rehabilitation of the Lumbar Spine & relationship to chiropractic.**

- The low back pain crisis: incidence, prevalence, adolescent and adult low back pain
- Systematic review of spinal manipulative therapy for lumbar disorders: evidence on pain improvements and frequency and duration of Chiropractic intervention
- Basic biomechanics of lumbar spine postural displacements: disc and muscular loads leading to acceleration of lumbar degeneration and lumbar disorders
- Review of the Literature Defining the Lumbar Lordosis in Health & Disease
  - A. Ideal and Average values in Adults and Children
  - B. Lumbar Lordosis & Race or Ethnicity
  - C. Lumbar Lordosis & Low Back Pain Syndromes
  - D. Lumbar Lordosis & Spondylolisthesis
  - E. Lumbar Lordosis & Degeneration of the Disc and Vertebra

**4pm – 5pm**

#### **Understanding the Posture Spine Connection & Abnormal Lumbar Configurations:**

- Lumbar spinal kinematics and coupling for thoraco-lumbar posture displacements
- Double and triple postural combinations and their associated spinal kinematic appearance
- Differentiating 'simple' postural displacement patterns of the spine versus complicated, injury related spine displacement types and subluxations

**5pm – 6pm**

#### **Body Weighting and Dynamic Thoraco-Lumbar Braces for Lumbar Rehabilitation**

- History of and clinical indications for use of body weighting for reducing postural/spinal subluxations of the thoraco-lumbo-pelvic region
- Clinical indications for dynamic postural/spine rehabilitation using thoraco-lumbar remodeling braces
- Case presentations of patients with lumbar spine disorders describing the details of patient management using body weighting and dynamic braces.

- 6pm – 7pm Mirror Image Exercises of the Thoraco-lumbar-pelvic Region**
- Mirror image exercise implementation and application into a chiropractic practice: equipment needs, timing, and appropriate supervision of patient populations,
  - Mirror image exercise for thoracic postural displacements
  - Mirror image exercise for pelvic postural displacements and full spine exercises.

- 7pm – 8pm Intro to Mirror Image Traction Procedures and Protocols**
- How to Progress the Patient into Lumbar Spine Traction Procedures
  - 4 Types of Lateral Lumbar Traction Methods with 17 categories of sagittal subluxations
    1. Supine 3-Point Bending Lumbar Traction: Indications & Contraindications
    2. Standing 3-Point Bending Lumbar Traction: Indications & Contraindications
    3. Sagittal Translation Traction: Indications & Contraindications
    4. Hip Extension Traction: Indications & Contraindications

## **Saturday**

- 2pm – 4pm Practical Demonstration Set-Ups**
- Standing 3-point bending Lumbar Traction Method
  - Supine 3-point bending Lumbar Traction Method
  - Coronal & Sagittal plane trunk translation traction methods
  - Mirror-Image Exercises
  - Body weighting and dynamic braces
  - Assessing the patient for orthotic intervention: Demonstrate and give the rationale for correct gait-referenced casting technique.

- 4pm – 5pm Health Disorders that May Positively Respond to Chiropractic Intervention and Management of Sagittal Plane Deformities:**
- ICA Best Practices—Research evidence indicates that over 330 health conditions have been reported to respond to Chiropractic.
  - Indications and contraindications for the use of home orthotics to improve the sagittal lumbo-pelvic alignment: Lumbar Denneroll, Thoracic Translation Blocks.

- 5pm – 6pm **Continued** --Mirror Image Traction Procedures and Protocols**
- How to Progress the Patient into Lumbar Spine Traction Procedures
  - 4 Types of Lateral Lumbar Traction Methods with 17 categories of sagittal subluxations
    1. Supine 3-Point Bending Lumbar Traction: Indications & Contraindications
    2. Standing 3-Point Bending Lumbar Traction: Indications & Contraindications
    3. Sagittal Translation Traction: Indications & Contraindications
    4. Hip Extension Traction: Indications & Contraindications
  - Postural Traction for Coronal Plane Displacements of the Lumbar Spine
  - Traction Procedures for Disc Herniations and Canal Stenosis of the Lumbar Spine

- 6pm – 8pm Case Management & Studies Documenting Correction of the Lumbar Spine**
- Non randomized clinical control on CBP lumbar traction procedures for rehabilitation of lumbar lordosis in chronic low back pain: APMR 2002
  - CBP lumbar traction in a case series of 3 patients with the flat back syndrome (lumbar kyphosis) and consequent disability: J Chiro Ed 05
  - CBP lumbar traction in a case of chronic low back pain with radiculopathy due to disc herniations: JMPT 2004
  - CBP equipment and patient needs.