Course Title

Neurological Implications of the Subluxation and the Chiropractic Adjustment

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Course Description

This course explores the neurological mechanisms underlying the chiropractic subluxation and the chiropractic adjustment through contemporary understandings of neuroscience. Drawing from current chiropractic neuroscience research, this program examines how altered spinal input affects brain function, sensorimotor integration, and higher cortical processes.

Recent advances in neuroscience have expanded our understanding of the cerebellum, prefrontal cortex, and their role in movement, cognition, and emotional regulation. These insights provide a modern framework for understanding how chiropractic care may influence brain function and support improved clinical outcomes. Research findings and clinical observations will be integrated to bridge theory and practice.

Course Outline

Hour 1: Current Trends in Neuroscience

- Evolving models of brain function and neural networks
- Expanded understanding of the cerebellum beyond motor control
- Relationship between movement, cognition, and emotional regulation
- Dysmetria of movement and its broader neurological implications

Hour 2: The Neurology of the Subluxation

- Spinal afferentation and its influence on brain processing
- The role of proprioception in movement and coordination
- Neurological significance of the cervical spine
- Integration of spinal input with ocular and emotional systems

Hour 3: The Neurology of the Chiropractic Adjustment

- The adjustment as a neurological stimulus
- Sensorimotor integration and neuroplastic responses
- Cerebellar and cortical involvement following adjustment
- Clinical implications of altered brain processing

Hour 4: Measuring Neurological Change

- Concepts of assessing dysmetria in movement and cognition
- Oculomotor and visual-motor evaluation
- Cervical proprioceptive assessment
- Considerations for emotional and cognitive measures
- General principles of rehabilitation following adjustment
- High-tech and low-tech approaches to care
- Integration of spinal, visual, and movement-based strategies

Learning Objectives

Upon completion of this course, the attendee will be able to:

1. Describe current trends in neuroscience relevant to chiropractic care
2. Explain neurological concepts related to the subluxation and adjustment
3. Discuss how chiropractic care may influence brain function
4. Identify clinical strategies for assessing neurological change
5. Apply neuroscience concepts to support clinical decision-making