



**LIFE CHIROPRACTIC  
COLLEGE WEST**

**How to Apply the Brain Model of Chiropractic in Practice**

**Instructors:** Monika Buerger, DC & Heidi Haavik, BSci (chiropractic), PhD

Sponsored by Life Chiropractic College West

**Summary**

The goal of this course is to provide chiropractors with an understanding of valid chiropractic neuroscience and physiological mechanisms by which the chiropractic adjustment may affect neurological and physiological functions. It will also provide a firm understanding of neurophysiology and neuro-adaptability and how to properly communicate the chiropractic/neurophysiological connection to patients. Assignments to enhance attendees' grasp of the material will also be a part of this course.

**Learning Objectives**

By the end of the seminar, participants will be better able to:

- understand current chiropractic neuroscience and how this applies to everyday practice
- understand how chiropractic adjustments may affect neurological function
- articulate neurological/chiropractic principles to optimize patient outcomes

**Outline:**

**Hour 1: Creating Certainty: Chiropractic Neuroscience Made Easy**

(neurology/basic sciences)

*Dr. Heidi Haavik*

In this hour Dr. Haavik will present an overview of the most current chiropractic neuroscience. She will also review the "three pillars" of an Evidence Based Practice model, what it looks like in a chiropractic setting, and how the most recent chiropractic neuroscience fits into this model.

**Hours 2-3: Brain Chatter : How the Chiropractic Adjustment Affects the Brain**

(neurology/basic sciences)

*Dr. Heidi Haavik*

In these two hours, Dr. Haavik will present the mechanisms by which the chiropractic adjustment may affect the brain and how this may be associated with clinical findings observed in chiropractic practices and what the findings may indicate.

**Hour 4: The "Ins & Outs" of our Body: How the Brain Knows What is Going on in our Environment**

(neurology/basic sciences)

*Dr. Heidi Haavik and Dr. Monika Buerger*

Dr. Haavik will present how the brain perceives the internal and external world and what it means to the practicing chiropractor.

Dr. Buerger will discuss the interoceptive and exteroceptive systems and how they may present in practice members

**Hour 5: All Stressed Out: The Foundations of Spinal Dysfunction and Subluxations**

(neurology/basic sciences)

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*Dr. Heidi Haavik and Dr. Monika Buerger*

Dr. Haavik will present the current evidence on the neurobiology of stress and how it relates to chiropractic. Dr. Buerger will introduce evidence, through peer reviewed literature, of how prenatal stress affects neurobiology and disease.

### **Hour 6-7: Prenatal Stress and Neurodevelopment**

(neurology/basic sciences)

*Dr. Monika Buerger*

In these two hours, Dr. Buerger will present evidence through peer reviewed literature of how prenatal stress may affect neurodevelopment of the offspring and how it can alter developmental milestones, postural stability and behavior. She will also discuss connections of prenatal stress and the low muscle tone child, and postural management for those with postural instability.

### **Hour 8: The Brain's CEO: Understanding the Prefrontal Cortex & the Chiropractic Connection**

(neurology/basic sciences)

*Dr. Heidi Haavik and Dr. Monika Buerger*

Dr. Haavik will present the importance of understanding the function of the prefrontal cortex. She will also present the neuroscience evidence through peer-reviewed literature showing that chiropractic care changes processing of information within the prefrontal cortex.

Dr. Buerger will discuss how heart rate variability and vagal tone are associated with function of the prefrontal cortex and what HRV measurements may indicate. She will also present an easy explanation of the vagal system and how to identify signs/characteristics of poor prefrontal/executive functioning.

### **Hour 9: The Kiddos Need Help!: Neurology & Chiropractic Care for Kids**

(neurology/basic sciences)

*Dr. Heidi Haavik and Dr. Monika Buerger*

Dr. Haavik will present the current research applicable to child neurology and neurological development as applied to chiropractic care. She will cover such topics as: colic, enuresis, ADHD, and Cerebral Palsy; what does the science say and how to present this to parents using an Evidence Based Practice model.

Dr. Buerger will present the importance of understanding that a child's behavioral expression is a window into their neurological integrity and what certain behaviors may indicate.

### **Hour 10: Communicating Chiropractic for Optimal Patient Outcomes!**

(neurology/basic sciences or patient communication)

*Dr. Heidi Haavik and Dr. Monika Buerger*

Dr. Haavik will discuss the importance of educating patients on chiropractic, pain and the stress cycle. She will tie together how pain is "in the brain" and how it relates to stress and the prefrontal cortex. She will present easy and effective ways to communicate this information to practice members.

Dr. Buerger will discuss simple and effective ways to connect and communicate with stressed patients in order to work within their specific goals and optimize the patient outcomes. She will also give an easy to understand explanation of neurologically based chiropractic care to share with patients that they can understand.

### **Teaching Methods**

Prerecorded video lecture with slides, homework, live interactive Q&A, quizzes