



**For More Information:**

Phone: 419-969-6099

E-mail: [info@glseminars.com](mailto:info@glseminars.com)

Payment in full is due with registration and there is a non-refundable cancellation fee of \$50. There will be no refunds given within 2 weeks (14 calendar days) of the seminar. Great Lakes Seminars reserves the right to cancel the course due to unforeseen/unavoidable circumstances. In the event of a cancellation, Great Lakes Seminars will not be responsible for any charges incurred by the registrant other than the course cost.

This course is also available as a private course for your staff. Please visit [www.glseminars.com](http://www.glseminars.com) for more details.

**2025 Course Schedule**

- February 22, 2025 - Burlingame, CA
- August 24, 2025 - Toledo, OH or Live Hybrid
- September 27, 2025 - Richmond, VA

Please check our website for the most updated schedule: [www.glseminars.com](http://www.glseminars.com)

**Continuing Education**

Our courses are submitted for continuing education approval in the state in which they are held. Please check [www.glseminars.com](http://www.glseminars.com) to ensure that the course you are planning to attend is approved in your state. Certificates of completion with the number of course hours will be emailed to attendees after the completion of each course.



# Advanced Evaluation and Treatment of Complex Pain

2025



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# Advanced Evaluation and Treatment of Complex Pain

## Course Description

How do you help someone who can't tolerate touch or exercise due to pain? Diagnoses such as complex regional pain syndrome, fibromyalgia, long-Covid pain, and any other chronic pain are difficult to treat until you understand the pathophysiology that led to the condition. This understanding gives you a framework for how to evaluate these patients in ways they have never been tested before and develop a treatment plan. There are many treatment options available to us to help reduce pain that won't cause a flare-up of symptoms. In this course, participants will learn how to evaluate central sensitivity, yellow flags, premotor pain, cortical smudging, motor drive, and carbon dioxide tolerance. Treatment includes graded motor imagery, cortical remapping, breathing protocols, motor drive retraining, and lifestyle changes.

## Karl Buche PT, DPT, CIMT, CIDN, TPS, OCS

Karl completed his undergraduate degree in Exercise Science from Michigan Technological University in 2012, then went on to graduate with his doctorate in physical therapy from Central Michigan University in 2016. He works at Probility Physical Therapy, which is based in southeast Michigan, and is the director of the Pinckney Clinic. After obtaining his CIMT credentials in 2019, he began teaching and assisting courses for GLS, with his main area of expertise being pain neuroscience. He believes in an eclectic treatment approach, including many styles of manual therapy, pain education, and individualized exercise. He cares deeply about the manner in which we communicate with our patients, and loves teaching others how to minimize nocebo effects during patient interactions. He lives in Chelsea, MI with his wife, Catherine, and puppy, Olive. He enjoys treating all orthopedic dysfunctions, and loves to incorporate breathwork into his practice.

## Course Objectives

At the completion of this seminar, the participant will be able to:

- Understand the mechanisms of complex pain, including central sensitivity, yellow flags, premotor pain, cortical smudging, impaired motor drive, and carbon dioxide tolerance.
- Evaluate and treat nociplastic pain, including complex regional pain syndrome and fibromyalgia.
- Use graded motor imagery to treat premotor pain and yellow flags.
- Evaluate and treat cortical mapping dysfunctions.
- Understand the mechanisms of breathing and how CO2 intolerance can increase pain, anxiety, and breathing disorders.
- Understand how living sympathetically can impair many body systems, including our pain response.
- Understand how to fix motor drive dysfunctions that do not correct with normal exercise treatment.

## Course Outline

### Saturday

- 7:30am Doors Open
- 8:00am Lecture: Pain Neuroscience Overview
- 9:00am Lecture: Lifestyle Modifications
- 10:00am Lecture: Complex Regional Pain Syndrome
- 11:00am Lecture: Fibromyalgia
- 12:00pm Lunch (on your own)
- 1:00pm Lecture: Why We Breathe
- 2:00pm Lab: CO2 Tolerance Test and Breathing Protocols
- 2:30pm Lecture: Motor Drive
- 3:30pm Lab: Motor Drive Retraining
- 4:00pm Lab: 2-pt Discrimination and Remapping
- 4:30pm Skills Review
- 5:00pm Adjourn

## REGISTER TODAY!

Register online at [www.glseminars.com](http://www.glseminars.com) or fill out this form and fax to (419) 730-1216 or mail with payment to: 2768 Centennial Road, Toledo, OH 43617.

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