

Next Generation Pain Solutions

- A Functional Neuro-Orthopedic & Low-Level Laser Therapy Approach to Pain and Injury Rehabilitation -

Instructor(s): Dr. Trevor Berry, DC, DACNB & Dr. David George, DC, DACNB, RN, FIAMA

Times: Saturday 8 am - 6:45 pm, Sunday 8:00 am – 2:15pm

Total CE hours: 14

Abstract Summary: The purpose of this lecture is to present the fundamentals of an integrative neuroscience-forward clinical framework for addressing pain and musculoskeletal injury presentations. The presenters will present a rational framework for approaching painful musculoskeletal conditions that is consistent with current guidelines for pain management. Specific therapeutic modalities will be presented. These include modalities including LLLT, nutrition, topical therapies, receptor-based therapy, joint mobilization. The overall intention is to offer the clinician a solid conceptual framework for therapeutic analgesia that will allow them to better organize their clinical approach and application of therapeutic modalities.

Main Objectives:

- Understand the integrative physical rehabilitation concept
- Appreciate the pathophysiology associated with neurogenic inflammation.
- Demonstrate an integrative approach to the treatment of neurogenic inflammation.
- Demonstrate an approach to the management of behavioral aspects of pain pathophysiology.
- Deconstructing movement efficiently and easily in order to reduce pain provocation.
- Demonstrate rational application of key neuromodulation technologies for pain.

Take Away Concepts: (The learner will be able to)

- ✓ Develop a rational and efficient pain management plan based on an integrative, neuro-orthopedic and Low-Level Laser paradigm.
- ✓ Understanding treatment paradigms that can be used immediately.
- ✓ Understand outcomes assessments that demonstrate the efficacy and quality improvement of therapy that is performed based upon diagnostic direction.

Key Words: (Critical components and Concepts)

- ✓ Pain management; integrative physical rehabilitation; physical rehabilitation; neurogenic inflammation; neuropathic pain.

Targeted Clinicians:

This program is designed for the following provider types: (Those with state licensure and or practice and utilization parameters of the material taught as defined within their individual scope of practice).

- ✓ Doctors of Chiropractic
- ✓ Medical Doctors
- ✓ Doctors of Osteopathy
- ✓ Naturopaths
- ✓ Nurse Practitioners
- ✓ Physician Assistants
- ✓ Registered Dieticians
- ✓ Clinical Nutritionists
- ✓ Acupuncturists
- ✓ Oriental Medicine Providers
- ✓ Certified Health Coaches

Instructional Methods:

- On stage presentation
- Video recording
- Power point usage
- Dry erase board usage
- Hands on demonstrations

- Q and A sessions
- Case Studies
- Notes available
- Post session testing for credit as set forth by the standards needed per hour.

Summary:

The information in this lecture is designed to connect the practitioner to real life topics with material and concepts that are rapidly evolving. Many components of this lecture can be coupled with overall health and wellness which is supported by appropriate laboratory testing for the aforementioned topics. Students will have notes and references to utilize as a study tool along with cases and access to instructions during session times.

Program Outline:

Saturday

7:30-8:00am Registration: Meet and greet and find your seat

8:00-9:45am Dr. George

- Drivers of Pain and Disability:
 - nociceptive drivers
 - nervous system dysfunction drivers
 - comorbidities drivers
 - cognitive-emotional drivers
 - contextual drivers
- Pain through the Neuroscience Lens
- Nociception:
 - Movement
- Neuropathic Pain:
 - Hyperalgesia,
 - Allodynia,
 - Central sensitization

9:45-10:00am Break

10:00-12:00pm Dr. Berry

- Introduction to Low-Level Laser Physiology
- Inflammation
- Central mechanisms of Inflammation
- Neuropathic pain and Low-Level Laser Therapy (LLLT)
- FDA Clearances and LLLT
- Supporting medical necessity with FDA cleared research
- Introduction to EMF and Glutamate Excitotoxicity

12:00-1:00pm Lunch

1:00-2:30pm Dr. George

Pathophysiology of Neurogenic Inflammation
 History of treatment of nerve pain
 Introduction to manual techniques in superficial nerve pain
 Introduction to Neuro-Orthopedic applications for common pain syndromes

2:30-2:45pm Break

2:45-4:00pm Dr. Berry

Introduction to Low-Level Laser techniques for peripheral pain conditions
Introduction to Low-Level Laser techniques for central pain mechanisms
Vagal nerve stimulation

4:00-4:15pm Break

4:15-6:45pm Dr. George & Dr. Berry

Demonstration of manual techniques in superficial nerve pain
Demonstration of low-level laser techniques in musculoskeletal conditions
Demonstration of low-level laser for peripheral and central neurogenic pain conditions
Introduction to multimodal application techniques for acute and chronic pain management

Sunday

8:00-9:45pm Dr. Berry

- LLLT research and applications for other pain related conditions
- Advanced concepts for up-regulation of central pain modulators
- Optimal dose for LLLT
- Neurological benefits of LLLT
- Hands-free laser technology

9:45-10:00am Break

10:00-12:00pm Dr. George

Behavioral Modifiers of Pain

- Relationship between Allodynia and Psychological variables
- Neural networks associated with pain modification
- Practical Approach to Behavioral modifiers of pain

12:00-1:00pm Lunch

1:00-2:15pm Dr. Berry

- **Case Studies**
- **Review**
- **Closing remarks**
- **15 minutes: Q and A (Dr. George & Dr. Berry)**

References:

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