

Course Title: Therapeutic Modalities 209 Therapeutic Modalities 209

Course Description:

Source: Physical Agents in Rehabilitation from Research to Practice, 5th edition, by Michelle Cameron.

Source Description: With straightforward, in-depth coverage of the use of physical agents to improve patient outcomes, *Physical Agents in Rehabilitation: An Evidence-Based Approach to Practice, 5th Edition* reflects how physical agents and modalities are being discussed in the classroom. This new edition brings the ideal balance of evidence and practical instruction to the learning and practice of physical agents in rehabilitation. Comprehensive coverage of all physical agents includes the mechanisms, clinical effects, and application techniques for thermal agents, ultrasound, electrical currents, electromagnetic radiation, hydrotherapy, traction, and compression. Plus, each chapter includes a scientific rationale and step-by-step instructions in the use of the agent(s), as well as up-to-date research support and new *Find the Evidence* tables.

Target Audience: OT / OTA and other healthcare professionals

Course Type: Video vs. Text-based

Educational Level: Beginner, Intermediate, Advanced

CE Hours: 4 contact hour / .4 ceu

Course Prerequisites: None

Course Author / Instructor: Brown, MS, OTR/L, CHT

Learning Objectives:

Introduction to Electrical Currents

- Define and describe 3 electrical current parameters including waveforms, time-dependent and other electrical current parameters
- Describe 3 positive effects of electrical currents
- List 3 contraindications and precautions for the use of electrical currents
- Outline the steps for application including patient positioning, electrode type and placement and list 3 general considerations

Electrical Currents for Muscle Contraction

- Describe the physiology involved in muscle contraction in the innervated muscle
- Describe clinical application for orthopedic, neurologic and sports medicine

- Describe muscle contraction for denervated muscle
- List 5 precautions and contraindications
- Outline parameters including, but not limited to, electrode placement, positioning, frequency and amplitude for the use of electrical stimulation for innervated muscles

Agenda:

Hour #1

Electrical Current Devices, Waveforms, and Parameters
 Waveforms
 Parameters
 Effects of Electrical Currents
 Stimulation of Action Potentials in Nerves
 Direct Muscle Depolarization
 Ionic Effects of Electrical Currents

Hour #2

Contraindications and Precautions for Electrical Currents
 Contraindications for Electrical Currents
 Precautions for Electrical Currents
 Adverse Effects of Electrical Currents
 Application Technique
 Patient
 Positioning
 Electrode Type
 Electrode
 Placement
 Documentation

Hour #3

Effects of Electrically Stimulated Muscle Contractions
 Innervated Muscle
 Denervated Muscle
 Clinical Applications of Electrically Stimulated Muscle
 Contractions
 Muscle Strengthening for Patients With Orthopedic Conditions
 Cardiorespiratory and Functional Training for Patients With Cardiac, Pulmonary, or Critical Illness
 Muscle Strengthening for Healthy Adults and Athletes
 Improved Muscle Coordination and Motor Control for Patients with Neurological Conditions

Hour #4

Edema Control and Improved Circulation
Retardation of Atrophy and Return of Function in
Denervated Muscle
Contraindications and Precautions for Electrically Stimulated

Course Completion Requirements:

A passing score of 100% is required for course completion. You will have as many attempts as needed until your passing score of 100% is achieved. Upon successful completion of course and completing a satisfaction survey, you will receive your certificate of completion.

Additional Course Information

Course Registration: Register for Free at www.OnlineCE.com. Once registered, you can begin to purchase courses. Contact info@onlinece.com for special needs requests and assistance.

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Course Date and Location: This is an independent course that is available 24/7 on-demand at www.OnlineCE.com.

Required Materials and Equipment: Courses offered on OnlineCE.com can be accessed on any type of computer or device. No special software is required but we do recommend the use of the Chrome Browser (recommended, not required). All course materials are contained within the courses and no prerequisites are required.



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