



AOTA Approved Provider #4023



Course Title: Therapeutic Modalities 116

Course Subtitle: Electrical Currents

Course Description:

Therapeutic Modalities 116, Electrical Currents, is a 3-hour course designed for the intermediate clinician using modalities with electric currents as part of an adjunct form of treatment. This course offers a comprehensive review of electrical currents, including its introduction, terminology, history and its various effects on muscle and nerve depolarization. Clinical application including tissue healing, edema control, muscle contraction and pain modulation will be covered. Contraindications and precautions along with the adverse effects of using electrical currents will be reviewed. This lesson will address clinical application including patient positioning, electrode type and placement and general instructions and guidelines for the use of electrical stimulation. Important features of documentation will be presented and case studies will be used to highlight key points and clinical application. At this end of this lesson, the learner will have a greater understanding of how to safely and effectively integrate the use of electrical modalities into a treatment plan.

Course Length: 3 hrs

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

Course Objectives:

- Outline the effects of electrical stimulation including nerve and muscle depolarization and ionic effects of electrical currents
- List and describe 5 clinical applications for electrical currents
- List and describe 5 contraindications and precautions for the use of electrical currents
- Outline the technique for applying electrical current including patient positioning, electrode types and positioning of electrodes
- Review examples of clinical documentation for the use of electrical currents
- Review 3 case studies to gain insight for clinical application

Outline of Content:

Hour 1:

- Terminology
- Introduction and History
- Effects of Electrical Currents
 - Nerve Depolarization
 - Muscle Depolarization
 - Ionic Effects of Electrical Currents
- Clinical Applications of Electrical Currents
 - Muscle Contraction
 - Pain Modulation
 - Tissue Healing
 - Edema Control
 - Iontophoresis

Hour 2:

- Contraindications and Precautions for the Use of Electrical Currents
 - Contraindications for the Use of Electrical Currents
 - Precautions for the Use of Electrical Currents
- Adverse Effects of Electrical Currents
- Application Technique
 - Patient Positioning
 - Electrode Type
 - Electrode Placement
 - General Instructions for Electrical Stimulation

Hour 3:

- Documentation
 - Examples
- Clinical Case Studies
 - Case Study: Upper Back and Neck Pain
 - Case Study: Medial Knee Pain
 - Case Study: Lateral Ankle Sprain
- Summary