



Online Continuing Education Courses
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AOTA Approved Provider #4023

Course Title: Therapeutic Modalities 208

Course Subtitle: Ultrasound and Diathermy

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 Length: 3 hours

Educational Level: Introductory, Intermediate, Advanced

The course is written at the intermediate level, but learners of all levels will benefit from the information.

Course Objectives:

At the end of the course, participants will be able to: (objectives are listed based on course section for individual detail)

Part I: Ultrasound

- Analyze the thermal and nonthermal benefits of ultrasound
- Discuss the clinical application of ultrasound in the use of soft tissue shortening, pain control, bone fractures and other clinical conditions
- List 5 contraindications and precautions for the use of ultrasound
- Describe application techniques and parameters surrounding the use of ultrasound
- Discuss components of ultrasound that should be included in documentation

Part II: Diathermy

- Examine and discuss the physical properties of diathermy

- Compare and contrast diathermy applicators
- Describe the thermal and nonthermal effects of diathermy
- Outline application techniques and understand positioning for diathermy
- Read case studies to highlight clinical application

Outline of Content:

Hour #1

Introduction

Terminology

History

Ultrasound Definition

Generation of Ultrasound

Effects of Ultrasound

Thermal Effects

Nonthermal Effects

Clinical Indications for Ultrasound

Soft Tissue Shortening

Pain Control

Soft Tissue Healing

Tendon and Ligament Injuries

Bone Fractures

Carpal Tunnel Syndrome

Phonophoresis

Hour #2

Contraindications and Precautions for Ultrasound

Contraindications for Ultrasound

Precautions for Ultrasound

Adverse Effects of Ultrasound

Application Technique

Ultrasound Treatment Parameters

Documentation

Examples

Clinical Case Studies

Physical Properties of Diathermy

Types of Diathermy Applicators

Inductive Coil

Capacitive Plates

Magnetron (Condenser)

Effects of Diathermy

Thermal Effects

Nonthermal Effects

Hour #3

Clinical Indications for Diathermy
Thermal-Level Diathermy
Nonthermal Shortwave Therapy
Contraindications and Precautions for Diathermy
Contraindications for All Forms of Diathermy
Contraindications for Thermal-Level Diathermy
Contraindications for Nonthermal Shortwave Therapy
Precautions for All Forms of Diathermy
Precautions for Nonthermal Shortwave Therapy
Precautions for Therapists Applying Diathermy
Adverse Effects of Diathermy
Burns
Application Technique
Positioning
Documentation
Examples
Clinical Case Studies

Instructional Methods and Formats:

Online course available 24/7 at www.OnlineCE.com includes PDF downloadable course. See course formats for additional details.

Course Completion Requirements:

A minimum 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, you will receive your certificate of completion and AOTA eligible CEUs.

AOTA Classification Codes:

- Category 1: Domain of OT
- Category 2: Occupational Therapy Process
- Category 3: Professional Issues

Additional Policies:

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