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AOTA Approved Provider #4023

Course Title: Neurology UE 112

**Sub-Title:** Traditional Sensorimotor Approach to Intervention

**Target Audience**: OT/OTA

**Course Length:** 3 hours

Course Author/Instructor: Martin, PT, MACT, Mary Kessler, PT, MHS / Brown, MS,

OTR/L, CHT

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 conclusion of the course, participants will be able to:

- Trace the flow of information in the central and peripheral nervous systems that leads to purposeful movement
- Define the sensorimotor system, its locus in the brain, and its function during motor performance
- List the structures that constitute the higher, middle, and lower levels of the central nervous system components for movement
- Name the four traditional sensorimotor approaches to intervention and the theorist responsible for each
- Name the two models of motor control that form the basis for the sensorimotor approaches to treatment
- Briefly describe each of the four traditional sensorimotor approaches to intervention; compare and contrast their similarities and their differences
- Define proprioceptive neuromuscular facilitation and how this approach facilitates adaptive responses that are performed in daily occupations
- Outline and describe the principles of proprioceptive neuromuscular facilitation and how to apply them to enhance client performance
- Describe the influence of sensory input on motor learning
- Use the proprioceptive neuromuscular facilitation evaluation to determine factors limiting clients' participation in their occupation
- Identify theoretic foundations of neurodevelopmental treatment, as well as current principles of evaluation and intervention
- Identify management strategies associated with neurodevelopmental treatment intervention and treatment techniques

- Integrate neurodevelopmental treatment within an occupation-centered and client-centered approach to evaluation and intervention
- Discuss the relationship between evidence-based practice and neurodevelopmental treatment, and discuss types of evidence available to support the use of neurodevelopmental treatment in occupational therapy

### **Outline of Content:**

## Hour #1

Overview

Neurologic considerations for traditional sensorimotor approaches to intervention

Central nervous system control of movement

Sensorimotor cortex

Relation to sensorimotor intervention approaches

Reflex and hierarchic models of motor control

Overview: the traditional sensorimotor

intervention approaches

The rood approach

The Brunnstrom (movement therapy) approach

Proprioceptive neuromuscular facilitation approach

Neurodevelopmental treatment approach

Summary

# **Hour #2**

Proprioceptive neuromuscular

facilitation approach

History

Principles of intervention

Motor learning

Auditory system

Visual system

Tactilesystem

Assessment

Intervention implementation

Diagonal patterns

Unilateral patterns

Bilateral patterns

Combined movements of the upper and lower extremities

Totalpatterns

Procedures

Techniques

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Relaxation techniques

Summary

### Hour #3

Neurodevelopmental treatment approach Historical context of the neurodevelopmental treatment approach

Berta 's developing theory: original concepts and changes over time

The philosophy of neurodevelopmental treatment Key principles of neurodevelopmental treatment Using neurodevelopmental treatment to restore participation in occupation

Evaluation

Intervention

Neurodevelopmental treatment and evidence-based practice

### **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:**

OnlineCE Policies are available by clicking on the tab – Policies – located in the left hand navigation bar.

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