COURSE DATE: 6/5/2020  

**TITLE:** Therapeutic Ultrasound for the Upper Extremity: An Evidence-Based Approach

**DESCRIPTION:** Therapeutic ultrasound is a helpful adjunct in therapy, but clinical guidelines for dosage, technique, and efficacy are often vague or arbitrary. This course provides an in-depth examination of therapeutic ultrasound, emphasizing evidence-based practice. Common myths will be corrected, and current research regarding technique, efficacy, and dosage will be reviewed in-depth, with applications that can be used immediately. Ultrasound technique will be practiced in lab. Participants will be given the opportunity to have their theoretical knowledge and ultrasound application skills evaluated at the end of the course.

**OUTCOMES:**

- Describe AOTA’s position on the use of physical agent modalities by OTs and OTAs
- Describe the State of Wisconsin Licensing Board’s position on the use of physical agent modalities by OTs and OTAs
- Describe the basic physics of mechanical waves
- Describe the properties of ultrasound
- Describe the various parameters of ultrasound usage and their effects
- Describe the precautions and contraindications for therapeutic ultrasound
- Demonstrate proper techniques for the application of ultrasound
- Calculate dosage of ultrasound for a thermal effect based on the current research
- Describe the purported thermal and nonthermal effects of ultrasound
- Describe the current state of research related to ultrasound efficacy
- Describe the difference in effect between thermal ultrasound and other heat modalities
- Describe the proper technique for phonophoresis based on current research

**INSTRUCTOR:** Michael Borst, OTD, OTR, CHT, is an associate professor of Occupational Therapy at Concordia University Wisconsin. Previously he was the Clinical Specialist in hand therapy at Meriter Hospital in Madison, WI, where he has worked in clinical care for over 20 years. He earned his bachelor’s degree in Psychology at Calvin College in Grand Rapids, MI, his master’s degree in Occupational Therapy at Western Michigan University in Kalamazoo, and his post-professional OTD at Rocky Mountain University of Health Professions. Mike has taught continuing education courses in hand therapy and physical agents throughout Wisconsin and at the AOTA and ASHT national conferences.

**LEVEL:** Intermediate

**AUDIENCE:** OTs, PTs, OTAs, PTAs, and ATs

**FOCUS: Domain of OT:** Areas of Occupation  
**OT Process:** Evaluation & Intervention

**AGENDA:**
7:30 AM  Registration Opens
8:00 AM  Professional/legal aspects of modalities
8:15 AM  Physics review
8:45 AM  Ultrasound properties, parameters, techniques
10:15 AM  Break
10:30 AM  Precautions, contraindications
10:50 AM  Wound healing
11:10 AM  Effects and dosage
12:00 PM  Lunch (on your own)
1:00 PM  Research regarding efficacy
1:40 PM  Problem solving, mistakes to avoid
1:55 PM  Ultrasound vs. other forms of heat
2:05 PM  Ultrasound machine suggestions
2:15 PM  Phonophoresis
2:35 PM  Break
2:50 PM  Lab; Opportunity to test both knowledge of theoretical background and technique
4:10 PM  Question and Answer
4:30 PM  Adjourn

*Agenda reflects 7 credit hours; awarded credit hours for course does not include breaks and lunch period.

PRE-COURSE ASSIGNMENT:
Suggested reading (not required) - either of the following:
Or

COURSE:  # 12712


CEU's / Clock Hours: 7 Clock Hours (0.7 CEU's)

LOCATION: UW-Milwaukee Continuing Education
Plankinton Building, 7th Floor, 161 West Wisconsin Avenue, Milwaukee, WI 53203

Register Online: http://bit.ly/ce12712