The 20th Annual Wisconsin Hand ExperienceSM is sponsored by the University of Wisconsin-Milwaukee, College of Health Sciences Outreach Office. Conference attendees will see evidence based state-of-the-art scientific sessions and workshops outlining the continuum of care following traumatic injury of the upper extremity.

**SATURDAY WORKSHOPS**

1. **ORTHOPEDIC MANUAL THERAPY OF THE WRIST AND FOREARM: A PROBLEM SOLVING APPROACH**

2. **JOINT MOBILIZATION FOR SECONDARY ADHESIVE CAPSULITIS**

3. **MANAGING HAND & FINGER EDEMA TO MAXIMIZE FUNCTION USING MANUAL LYMPHATIC DRAINAGE AND SHORT STRETCH COMPRESSION BANDAGING**

4. **ELECTROPHYSICAL AGENTS**

5. **WOUND MANAGEMENT PRINCIPLES & PRACTICE**
11:00 REGISTRATION OPENS

12:00 WELCOME AND INTRODUCTION

12:15 FROM FINGER FRACTURES TO THE MANGLED HAND: AN ACUTE TRAUMA OVERVIEW

This presentation will describe the principles of surgical management of the traumatized hand. It will focus on prioritizing the repair of injured structures following acute trauma.

Brett F. Michelotti, MD
University of Wisconsin School of Medicine and Public Health, Department of Surgery, Madison, WI

1:00 FRACTURE FIXATION

This presentation will provide a detailed discussion of various hand and wrist fracture fixation techniques.

Brett F. Michelotti, MD
University of Wisconsin School of Medicine and Public Health, Department of Surgery, Madison, WI

1:45 BREAK

2:15 WOUNDS AND THE HAND THERAPIST

If you want to know more about wound assessment, healing, and factors that affect healing, join us for this presentation! This talk will review the essentials and more.

Sunniva Zaratkiewicz, PhD, RN, CWCN
Harborview Medical Center, Seattle, WA

3:00 EFFECTIVE UPPER EXTREMITY EDEMA MANAGEMENT: BURYING THE USE OF RETROGRADE MASSAGE

Managing edema is poorly understood, yet uncontrolled edema increases pain, and reduces ROM and function. This presentation will explain the anatomy and physiology of the lymphatic system and clarify the role of this system in managing edema. It will discuss why manual lymphatic drainage and bandaging can be more effective than traditional treatment methods such as retrograde massage and rest, ice, compression, and elevation (RICE).

Victoria Johnsen Ralph, MPPA, OTR/L, CLT-LANA
UCHealth, Denver, CO

3:45 INTERVENTIONS IN ACTION—PATIENT CASES

Jamie L. Bergner, OTD, OTR/L, CHT, COMT, Vanderbilt University Medical Center, Nashville, TN
Bethany Brooks, MOTR/L, Froedtert Hospital, Milwaukee WI
Theresa Parry, OTR, CHT, COMT, Hand to Shoulder Center of Wisconsin, Appleton, WI
Victoria Johnsen Ralph, MPPA, OTR/L, CLT-LANA, UCHealth, Denver, CO
Sunniva Zaratkiewicz, PhD, RN, CWCN, Harborview Medical Center, Seattle, WA

5:00 ADJOURN

THURSDAY LEARNING OUTCOMES

- Describe principles of surgical management of the traumatized hand
- Describe different methods for fracture fixation
- Describe the physiology of wound healing, wound assessment, and factors that affect wound healing
- Discuss concepts regarding when range of motion is safe
- Identify non-expandable medical devices
- Describe lymphatic anatomy
- Describe the role of the lymphatic system in edema reduction
- Summarize how activation of the lymphatic system will reduce fluid and protein congestion
- Identify the signs and symptoms of lymphedema and when to refer a patient to a certified lymphedema therapist (CLT) for treatment
- Identify contraindications for edema intervention
8:15 THE ROLE OF MODALITIES POST TRAUMA
This lecture will review the current literature on the use of electrophysical agents for the treatment of patients post trauma. The role of these agents in pain relief, edema control, and accelerating the healing process will be examined.
Andrew Starsky, BSEE, MPT, PhD
Marquette University, Milwaukee, WI

9:00 ONE-HANDED ADL AND IADL TECHNIQUES
This presentation will include an overview of principals, strategies, and tips for successful completion of ADL and IADL while performing one-handed tasks. It will demonstrate one-handed strategies to maximize independence following surgery, traumatic injuries, and upper extremity amputations.
Karen London Reindl, OTR, CHT
Hand to Shoulder Center of Wisconsin, Appleton, WI

9:45 WRIST STIFFNESS AFTER TRAUMA: ORTHOPEDIC MANUAL THERAPY SOLUTIONS TO RESTORING FUNCTION
Distal radius fractures are one of the most common forms of wrist trauma and may result in functional limitations from a stiff wrist. This session will demonstrate how an orthopedic manual therapy systematic evaluation combined with clinical decision-making algorithms can lead to the optimal treatment for patients. Manual therapy treatment techniques will be highlighted to gain mobility in stiff wrists and improve patient outcomes.
Jamie L. Bergner, OTD, OTR/L, CHT, COMT
Vanderbilt University Medical Center, Nashville, TN

10:30 BREAK

11:00 EVALUATION IN FRACTURE CARE OF THE UPPER EXTREMITY: MANAGING SURGICAL AND NONSURGICAL PATIENTS
This presentation will discuss both surgical treatment and nonsurgical treatment of fractures and radiographic and functional outcomes.
Greg P. Watchmaker, MD
The Milwaukee Hand Center, Mequon, WI

11:45 CADAVERIC DISSECTION: ORIF OF THE DISTAL RADIUS & POTENTIAL HARDWARE COMPLICATIONS
This interactive dissection will focus on anatomy pertinent to distal radius fractures.
Greg P. Watchmaker, MD
The Milwaukee Hand Center, Mequon, WI

12:30 LUNCH

1:30 NEUROMUSCULAR RE-EDUCATION FOR THE WRIST AND FOREARM
This presentation will provide course participants with a review of the arthrokinematics of the wrist and forearm. A hands-on opportunity will be provided to perform neuromuscular re-education techniques to facilitate wrist and forearm range of motion for immediate application in the clinic.
Ann Porretto-Loehrke, PT, DPT, CHT, COMT, CMTPT
Hand to Shoulder Center of Wisconsin, Appleton, WI

2:15 SENSIBILITY AND SENSORY RECOVERY
This presentation will provide a review of peripheral nerve injury classification and outline the therapist’s role in the evaluation and treatment of sensibility. It will explore the objective measures available to assess sensation, outline the course of sensibility return, and identify predictive factors for sensory recovery. It will also address what can be done to effectively treat and educate patients to improve outcomes of functional sensibility in the hand.
Karen London Reindl, OTR, CHT
Hand to Shoulder Center of Wisconsin, Appleton, WI
FRIDAY May 10 • 8:00AM - 5:30PM

3:00 BREAK

3:30 ADHESIVE CAPSULITIS: THE UNFORTUNATE CONSEQUENCE OF DISTAL TRAUMA
This presentation will provide practical information in classifying two types of adhesive capsulitis and addressing a treatment plan for patients who develop secondary adhesive capsulitis as a result of distal upper extremity issues.

Ann Porretto-Loehrke, PT, DPT, CHT, COMT, CMTPT
Hand to Shoulder Center of Wisconsin, Appleton, WI

4:15 USE OF DERMAL MATRIX SUBSTITUTE IN UPPER EXTREMITY SOFT TISSUE INJURIES
Severe soft tissue injuries of the upper extremity not appropriate for routine skin grafting have traditionally been treated with local and free tissue transfers. These free tissue transfers often require multiple procedures and have prolonged recovery periods. Furthermore, many patients, due to local tissue damage or co-morbidities, may not be ideal candidates for such transfers. A dermal matrix substitute, A dermal matrix substitute, has been proven to reliably provide an efficient means of coverage in many such situations with minimal scarring, without donor site morbidity, and oftentimes without the need for secondary procedures.

Anthony LoGiudice, MD
Medical College of Wisconsin, Milwaukee, WI

5:00 PANEL DISCUSSION

5:30 EXHIBITOR RECEPTION

FRIDAY LEARNING OUTCOMES

- Identify the time and amplitude-dependent quantitative properties of therapeutic electrical current and ultrasound
- Describe the clinical indications and contraindications for the use of therapeutic electrical current and ultrasound
- List the electrophysiological properties of excitable tissues and physiological effects of electrical stimulation
- Describe the application of electrical stimulation for muscle activation, pain relief, and edema management
- Describe the base of evidence for the use of electrical stimulation and ultrasound
- Identify important principals related to successful completion of ADL and IADL while performing one-handed tasks
- Demonstrate at least 10 one-handed strategies for successful performance of ADL and IADL tasks to maximize independence for their patients who either temporarily or permanently, possess the use of only one hand
- Identify causes of a capsular pattern of the wrist
- Describe when manual therapy techniques are indicated, and when they are contraindicated after traumatic wrist injuries
- Identify two different mobilization techniques to improve wrist flexion and extension
- Explain the priorities in treating both surgical and conservatively-managed fractures
- Identify areas of concern when performing rehabilitation for patients with distal radius fracture
- Explain the arthrokinematics of the wrist at both the radiocarpal and midcarpal joints to optimize motion with neuromuscular re-education techniques
- Describe the arthrokinematics at the proximal radioulnar joint to facilitate radial head mobility to promote forearm pronation & supination
- Practice neuromuscular re-education techniques at the proximal and distal carpal rows to optimize wrist motion
- Perform manual techniques guiding motion at the radial head to facilitate forearm rotation
- Prescribe home program options for patients to maintain motion at both the wrist and forearm
- Identify the classifications of nerve injury
- Describe the typical order of sensibility recovery and the predictive factors that may indicate long-term prognosis for sensibility recovery following injury and repair
- Identify objective methods by which sensibility may be assessed
- Identify therapeutic interventions that facilitate restoration of meaningful sensation in the upper extremity
- Describe the history and clinical presentation of adhesive capsulitis
- Explain the stages of adhesive capsulitis
- Classify the two types of adhesive capsulitis and how treatment differs for each
- Determine the passive motion limitations associated with a capsular pattern at the glenohumeral joint
- Formulate a treatment plan to address secondary adhesive capsulitis in a patient presenting with distal trauma
- Describe the utility of dermal matrix substitutes for covering wounds of the upper extremity
- Describe the basic science and biologic benefits in scar tissue healing and the limitations of dermal matrix substitutes
WORKSHOPS

1. **ORTHOPEDIC MANUAL THERAPY OF THE WRIST AND FOREARM: A PROBLEM SOLVING APPROACH**

This workshop will answer the following questions: How do I improve my patient’s function after injury to the wrist and forearm? What tests should I perform in the clinic to guide my treatments? Am I doing these techniques correctly? This solution-based workshop outlines an orthopedic manual therapy problem solving approach for the evaluation and treatment of wrist and forearm injuries. This approach, when applied appropriately and consistently, guides decision making for patients with common clinical presentations but individual differences. Participants will gain a deeper understanding of the wrist and forearm anatomy, arthrokinematics, and pathomechanics. Through demonstrations and lab breakout sessions, participants will receive hands-on training and feedback. Lab sessions will provide an opportunity to develop, refine, and gain confidence when performing manual therapy techniques of wrist and forearm injuries.

Jamie L. Bergner, OTD, OTR/L, CHT, COMT
Vanderbilt University Medical Center, Nashville, TN

2. **JOINT MOBILIZATION FOR SECONDARY ADHESIVE CAPSULITIS**

Your patient with a distal radius fracture is now starting to complain of pain and stiffness in her shoulder, which is getting progressively worse. The shoulder range of motion exercises initially prescribed have been getting more difficult. What is the next step? This course will provide hands-on skills with assessment and treatment of secondary adhesive capsulitis, both with large limitations of motion as well as small limitations of motion at end-range elevation to restore functional mobility for these patients.

Ann Porretto-Loehrke, PT, DPT, CHT, COMT, CMTPT
Hand to Shoulder Center of Wisconsin, Appleton, WI

3. **MANAGING HAND & FINGER EDEMA TO MAXIMIZE FUNCTION USING MANUAL LYMPHATIC DRAINAGE AND SHORT STRETCH COMPRESSION BANDAGING**

Managing edema is poorly understood, yet uncontrolled edema increases pain, and reduces ROM and function. This workshop will demonstrate how the use of manual lymphatic drainage and bandaging are superior techniques to manage swelling over traditional methods such as rest, ice, compression, and elevation (RICE). Lab sessions will provide participants the opportunity to become familiar with manual lymph drainage and short stretch bandaging of the hand and fingers.

Victoria Johnsen Ralph, MPPA, OTR/L, CLT-LANA
UCHealth, Denver, CO

4. **ELECTROPHYSICAL AGENTS**

This lecture and lab course will review the current literature on the use of electrophysical agents for the treatment of patients post trauma and explore the clinical use of these agents. The role of these agents in pain relief, neuromuscular re-education, edema control, and accelerating the healing process will be examined and practiced in a hands-on setting.

Andrew Starsky, BSEE, MPT, PhD
Marquette University, Milwaukee, WI

5. **WOUND MANAGEMENT PRINCIPLES AND PRACTICE**

Participants will have the opportunity to review wound care cases and practice hands on application of wound dressings. Techniques on difficult-to-dress areas, including use of negative pressure, will be covered.

Sunniva Zaratkiewicz, PhD, RN, CWCN
Harborview Medical Center, Seattle, WA

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

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Wisconsin Hand Experience
SM
2019
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Crowne Plaza Milwaukee Airport

Wisconsin Hand Experience
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2019, Course # 11779: Entire Conference: $640
Approximate CEUs: 1.75 (17 hours, 30 minutes)

Thursday and Friday Only: $455
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Thursday and Saturday Only: $420
Approximate CEUs: 0.95 (9 hours, 30 minutes)

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Friday Only: $250
Approximate CEUs: 0.75 (7 hours, 30 minutes)

Saturday Only: $215
Approximate CEUs: 0.5 (5 hours)

*CEUs are based on participant’s actual class hours. Agenda is subject to change based on instructor preference and time available. Speakers and programs subject to change.
**REGISTRATION**

**Online:** Online registration is recommended. Visit [www.chs-ce.uwm.edu](http://www.chs-ce.uwm.edu), scroll down to Wisconsin Hand Experience℠ 2019 and use the “register now” link. Wisconsin Hand Experience℠ is course #11779.

**Mail/Fax:** If you register by mail or fax, all registrations will be processed on a first-come, first-served basis. You must rank your choices of Saturday workshops. While we will make every effort to accommodate first choices, please note that workshops have limited capacities. Those attending all three days will be given priority if registration is received prior to 3/9/2019.

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<th>Name: ____________________________</th>
<th>Please enroll me in: (circle day(s))</th>
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<tr>
<td>E-mail (required): __________________</td>
<td>ALL 3 DAYS - ENTIRE CONFERENCE $640.00</td>
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<td>Organization: ____________________</td>
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- Check if you plan to attend the Friday reception.
- Please reserve a vegetarian lunch for me.
- Check if you prefer not to have your contact information released to other conference participants.

**SATURDAY WORKSHOPS**
Please choose and rank in order the program you would like to attend. You must list at least 3 choices.

1 = first choice, 2 = second choice, 3 = third choice

2. Joint Mobilization for Secondary Adhesive Capsulitis
4. Electrophysical Agents
5. Wound Management Principles and Practice

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The University of Wisconsin-Milwaukee
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2019 Wisconsin Hand Experience℠

Rehab Challenges Following Upper Extremity Trauma
THURSDAY, MAY 9 - SATURDAY, MAY 11

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