

# Limb Loss/Amputee Rehabilitation: Evidence-based Strategies Across the Continuum of Care

Inger Brueckner, MS, PT



## Faculty

Inger Brueckner is the principle physical therapist treating limb loss at Presbyterian/St. Luke's Medical Center. Her experience spans many age groups, causes and levels of limb loss and amputee working in a multidisciplinary team dedicated to the advancement of function in this population. With a master's in PT, Inger has worked primarily as an outpatient therapists and hospital-based outpatient center. She co-authored an article on pre-prosthetic training and has presented at national and international conferences and presented a poster of a study at APTA CSM. She also worked in the vestibular rehabilitation since 1995, specifically pediatric vestibular rehabilitation. These disparate populations have several commonalities that help encourage a grounded, functional approach that address the patient as a whole person and is more flexible with approaches to better serve their needs. She developed and directed the Rocky Mountain Hospital for Children's acute concussion program: PACER. Both programs were devolved jointly in a team of specialists respecting and encouraging one another to find better solutions for these deserving populations and to share approaches.

Disclosure - Financial: Ms. Brueckner receives an honorarium from ERI for teaching. Non-financial: No non-financial relationships to disclose.

## About this Live Webinar

This course offers a comprehensive perspective for management of the limb loss/amputee patient. Clinical expertise can be difficult to obtain since this population is a small proportion of the rehabilitation caseload. Current research, expert opinions from PT, OT, orthopedic and plastic surgeons, PM&R, prosthetists, as well as patient experiences will be presented. The class addresses the medical issues and common complications that place limbs at risk. Attendees will learn to make educated clinical decisions to improve function. This dynamic course addresses limb loss/amputee due to diabetes, vascular disease, trauma, cancer, sepsis and congenital issues. Current guidelines recommend therapy interactions start pre-operatively and continue through the lifespan of the patient. New technology, surgical techniques and futures directions are included in discussion. Many of the techniques described in the course can be applied to patient populations with limbs at risk and the multi-trauma patient. The course is primarily lecture with multiple video clips taken throughout the continuum of care. There will be case-based analysis and critical problem solving intermixed with labs, lectures and demonstrations. Access to videos of demonstrated techniques will be included.

## Objectives

- Modify an individual rehab program using current evidence-based techniques for common comorbidities, taking into account lifetime needs of this population.
- Apply two evidence-based assessments to evaluate a patient's functional impairments related to movement and posture.
- Determine an appropriate treatment intervention for common complications of phantom pain, residual limb pain, low back pain, and skin breakdown.
- Apply three interventions to facilitate mobility and ADL independence post upper extremity loss, using the case study provided.
- Apply three interventions to facilitate mobility and ADL independence post lower extremity loss, using the case study provided.
- Identify the role of OT, PT, and other members of the multidisciplinary team across the spectrum of rehabilitation for the patient with limb loss.

## Patient Population & Audience

This course is designed for: PTs, PTAs, OTs, OTAs, and ATCs who are working with patients who have limb loss. This course is relevant across the lifespan for all persons with limb loss or limb difference.

Help your patients achieve better outcomes.

## Schedule – Day 1 9:40 am - 7:30 pm EST (US)

9:40 – 10:00	<b>Webinar Registration/Zoom Course Opens</b>
10:00-10:30	Introduction to limb loss and limb difference: scope of the problem, evidence-based treatment, multidisciplinary team approach, clinical practice guidelines, insurance coverage, patient perspectives
10:30-12:00	Medical conditions leading to limb loss, specific issues with diabetes, vascular dysfunction, trauma, infection and cancer, congenital considerations Surgical considerations for nerve, muscle, bone and skin in different levels of amputation. Psychological impacts, social support and caregiver education. Medicare K levels, outcomes. Pre-operative evaluation/ management
12:00-12:15	<b>Break</b>
12:15-1:00	Intra-operative video of surgical technique, Ertl technique, rotationplasty, limb lengthening and revision surgery
1:00-2:00	Acute post-op overview and rehabilitation timeline, positioning, compression, initial exercises, mirror therapy, initial upper limb interventions, sound limb protection
2:00-2:30	<b>Lunch</b>
2:30-3:45	ADLs, wheelchair considerations, adaptive equipment including bathroom, kitchen, functional problem solving, home modification, ADLs in the face of multi-limb loss, upper limb considerations, return to driving and vehicle modifications
3:45-4:45	Pre-prosthetic rehabilitation including upper limb, core exercises, ROM, reducing HEP barriers, considerations for critical illness, cancer, non-prosthetic candidates, aquatic exercise
4:45-5:00	<b>Break</b>
5:00-6:15	Cardiovascular activity using updated guidelines for diabetes, peripheral neuropathy, vascular dysfunction, critical illness condition, falls and balance considerations
6:15-6:30	Open discussion for modification of activity in specific circumstances or difficulties
6:30-7:15	Upper extremity rehabilitation, body powered and myoelectric training, donning/doffing, ADLs, PT/PTA role in upper limb loss, postural and overuse syndromes
7:15-7:30	Communicating with medical team, prosthetist discussion

## Schedule – Day 2 9:40 am - 5:00 pm EST (US)

9:40 – 10:00	<b>Webinar Registration/Zoom Course Opens</b>
10:00-11:00	Prosthetic fabrication, prosthetic components, suspension systems, knee options(mechanical and microprocessor), initial delivery, wear schedule, donning/doffing, fit issues and sock ply changes, sit-stand transfers, fall training, floor transfers, skin preparation and skin care
11:00-12:00	Gait training, assistive device selection, gait deviation terminology, stairs, ramps, bilateral transfemoral and hip disarticulation issues, multi-limb loss considerations
12:00-12:30	Group discussion of invited gait video review and interventions for observed gait deviations
12:30-12:45	<b>Break</b>
12:45-2:00	Running and adaptive sport activity for all levels, planning for travel
2:00-2:30	<b>Lunch</b>
2:30-4:00	Managing complications, skin disruptions, weight gain, neuroma, phantom pain, residual limb pain, back pain
4:00-4:15	<b>Break</b>
4:15-5:00	Advancements: Targeted Muscle Re-innervation, Pattern recognition Osseointegration, future trends with powered prosthetics

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## Credits

This course meets the criteria for 14.5 contact hours (1.45 CEUs) Intermediate Level.



Education Resources Inc. is an AOTA Approved Provider of professional development. Course approval ID# 04131. This Distance Learning-Interactive course is offered at 14.5 contact hours 1.45 CEUs. (Intermediate level, OT Service Delivery). AOTA does not endorse specific course content, products or clinical procedures.

This course can be used toward your NBCOT renewal requirements for 14.5 units.

Approved provider of the **FL** Board of Occupational Therapy-CE Broker – 14.5 hrs.

This course meets the approval of the **TX** Board of OT Examiners.

Application has been made to the **FL** Physical Therapy Association for 17 continuing education contact hours.

Approved by the **MD** Board of Physical Therapy Examiners.

Approved by the **MN** Board of Physical Therapy.

Approved by the **NJ** Board of Physical Therapy Examiners.

Approved sponsor by the State of **IL** Department of Financial and Professional Regulation for Physical Therapy for 17 contact hours.

Approved provider by the **NY** State Board of Physical Therapy for 17 contact hours (1.7 CEUs).

Education Resources, Inc. is an approved provider for Physical Therapy CEUs in the following states: **CA, KY, OK and TX**.

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12 hours of this course qualify towards the discipline-specific hours for the 20-hour requirement for NDTA re-certification. They do NOT qualify towards the 8-hour NDTA Instructor requirement for re-certification.

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## Webinar Dates and Times

December 6 and 13, 2024

9:40 am EST • 8:40 am CST • 7:40 am MST • 6:40 am PST (US)

Registration is for both sessions. Zoom log-in Instructions and Course Materials will be emailed/added to your ERI account 5-7 Days prior to the first date of the Webinar.



\$389 fee. **LIMITED ENROLLMENT.** Cancellation will be accepted until 14 days prior to the start date of the course, minus a \$75 Administration Fee. There will be NO REFUNDS after this 14-day deadline. Registration will be accepted after deadline on a space available basis. We encourage you to register online!

**WEBINAR: Limb Loss/Amputee Rehabilitation: Evidence-Based Strategies Across the Continuum of Care**

**- Inger Brueckner**

**☐ December 6 and 13, 2024**

**Course Registration Form**

Name: \_\_\_\_\_

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