

Mobility Research  
LLC Education Department is pleased to present;

## **Partial Weight Bearing Gait Therapy 2**

RATIONALE, PROTOCOLS & CLINICAL TECHNIQUES LAB

### **LiteGait PWB2 8:00-16:00**

#### **8:00-9:45: LiteGait Device & Therapy**

- Common gait problems
- What works: Specific interventions, recent evidence
- Specific joints and timing issues
- Gait analysis: practical considerations in the clinical setting
- Capturing the essence: outcomes measurement, interpretation and reporting.

#### **9:45: break**

10:00-10:45: Harness Application Lab, Device Interaction (REQUIRED: Training BOX, harnesses) (if they are experienced users and do not want harness application lab, then we can do GS2000 presentation (lecture/lab)

10:45-11:30: Patient Demonstration (Instructor demonstration only, first patient. Patient's therapist should be in attendance.)

**11:30-12:00: Group work:** Participants plan a treatment session for their assigned patient (Identify session goal, primary impairment, suggest techniques to address impairments, which you will practice in the afternoon when the patient arrives).

**12:00 LUNCH:** Participants should plan to discuss their assigned patient with their group over the lunch break, if they have not finished by the time lunch arrives.

13:00—15:30: Patient Interactions (4 patients, scheduled every 30 minutes)

Hands on Group Interaction: Patient Treatment (4-5 participants per group, each group is assigned to one of the patient demonstrations).

15:30-16:00: wrap-up/post-survey

#### **16:00 End of Seminar**

#### **Course description:**

Following neurological or orthopedic injury, various movement impairments impede the ability to implement a normal gait pattern, leading to a decrease in walking, functional performance and participation. In this 1-day seminar we will enhance and expand your knowledge and use of the LiteGait along with observational and instrumented treadmill-based gait analysis to identify common gait impairments, demonstrating how these impairments impede gait ability. We will strategize how best to specifically address them in intervention programs to minimize their effect on gait and maximize walking performance. We will then implement those strategies with select individuals with neurological or orthopedic conditions and evaluate the effect of selected interventions on those individuals. Clinicians will learn to use the LiteGait environment to its fullest extent with a variety of patient functional levels. This course assumes basic LiteGait therapy knowledge and comfort level with using the environment for patient treatment.

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### **Objectives:**

Upon completing this seminar, participants will:

- Refine their understanding of Partial Weight Bearing (PWB) treatment environment, concepts, including an overview of the research and clinical background leading to the concepts.
- Apply modalities such as postural training, balance training, dual-task training and forced use therapies within an optimized PWB treatment environment.
- Identify elements of a biomechanically-efficient gait pattern that are not present in specific gait patterns demonstrated by individuals with neurological impairments.
- Demonstrate improved direct hands-on skills during patient sessions that allow for the instructor's immediate verbal and manual feedback as well as the patient's feedback.
- Accurately interpret results of instrumented spatiotemporal gait analysis to identify specific gait impairments.
- Select specific intervention strategies or techniques to address the timing and alignment deficits observed in the gait pattern(s) of select neurologically-impaired individuals.
- Safely implement strategies that address deficits in gait that prevent the use of an energy-efficient gait pattern.
- Compose appropriate patient goals for gait improvement that address identified energy-efficiency deficits in individuals with neurological impairments.
- Accurately evaluate the effect of selected interventions when implemented with selected individuals with neurological impairments.

### **About the instructor:**

Nechama Karman, PT, MS, PCS

Nechama Karman, PT, MS, PCS is a board certified pediatric physical therapist in private practice in Great Neck, NY. She was formerly on faculty at the School of Health Professions, Behavioral and Life Sciences of New York Institute of Technology, in Old Westbury, NY and School of Health Sciences, Hunter College of the City University of New York.

She has recently held adult rehab and outpatient positions, including working with adults with traumatic brain injury spanning the spectrum from coma emergence to high-performance sports participation (including running) using the LiteGait.

Ms Karman also has extensive experience in the acute rehab setting for adults with orthopedic and neurological conditions. She has extensive pediatric rehabilitation experience across the spectrum, and has held pediatric clinical, education and research positions in NY.

She is active in clinical education as well as clinical research. Her research interests relate to the efficacy of treatment approaches in pediatric physical therapy, and in women's health issues in physical therapy. She is a PhD candidate at Seton Hall University's School of Graduate Medical Education. She has a Masters degree in physical therapy, and an advanced masters degree in orthopedic physical therapy.

### **About our company:**

Mobility Research is a company of rehabilitation professionals dedicated to the transfer of the latest technology and research knowledge to the rehabilitation arena. We are a team of clinicians, researchers, educators, and engineers dedicated to providing products, education, and rehabilitation solutions for pediatric and adult populations with motor control related disabilities.

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#### Citations:

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