

## Program Overview:

Locomotor training, an activity-based therapy, provides task-specific practice of standing and walking by optimizing the sensory cues to generate improved motor activity for mobility, standing, and walking after neurologic injury. Locomotor retraining is provided on a treadmill using partial body weight support and manual facilitation. Improved neuromuscular capacity is then transferred to overground skills that are integrated into the home and community.

Participants will learn the scientific basis, hands-on skills, clinical decision-making, and administrative and management strategies for providing locomotor training in a three and one-half day intense course.

## Course Schedule:

### Day 1

Registration: 7:30-8:00 AM

Course Program: 8:00 AM-6:00 PM

All participants will attend lectures that will focus on developing an understanding of the basic science and guiding principles of activity-based therapy, with an emphasis on locomotor training. All participants will be introduced to the skills and clinical-decision-making required to deliver locomotor training. Considerations for implementing activity-based therapy into rehabilitation programs will be discussed.

### Days 2-4

Course Program Day 2-3: 8:00 AM-5:00 PM

Course Program Day 4: 8:00 AM-12:00 PM

Clinical team members will participate in intensive skill development of locomotor training techniques. This includes patient evaluation and progression using a body weight support treadmill system, locomotor training, overground assessment and progression, and community ambulation and activity training.

## Course Objectives

This intensive three and one-half day course combines didactic teaching and practical skills development with hands on treatment of individuals with spinal cord injury. At the completion of this program, participants will:

1. Demonstrate a working knowledge of the basic science related to activity-based therapy.
2. Demonstrate a working knowledge of the guiding principles of activity-based therapy, with an emphasis on locomotor training on the treadmill, over ground, and in the community.
3. Identify and incorporate the principles of locomotor training during patient evaluation and progression.
4. Demonstrate knowledge of trainer positions and the roles of each trainer during locomotor training.
5. Demonstrate introductory level hands on skills as a trainer of locomotor training (in preparation for continued practice and skill development upon return to own clinical site).
6. Describe the resources necessary to establish an effective and efficient activity-based therapy program, with an emphasis on locomotor training.
7. Discuss how to effectively integrate locomotor training into an existing comprehensive therapy program.



## Instructors:

### Lead Course instructor will be one of the following individuals:

- **Susan Harkema, PhD**, Director NeuroRecovery Network; Department of Neurological Surgery, University of Louisville; Rehabilitation Research Director Frazier Rehabilitation Institute, Louisville, KY  
Dr. Harkema developed the Locomotor Training Program based on knowledge gained from her research and collaborations during the past 14 years. These are enabling her to translate the latest scientific findings into clinical rehabilitative strategies.

- **Andrea Behrman, PhD, PT**, Assistant Director NeuroRecovery Network; Associate Professor, Department of Physical Therapy, University of Florida; Research Health Scientist, VA Brain Rehabilitation Research Center, Gainesville, FL

Dr. Behrman, a physical therapist, has specialized in adult neuro-rehabilitation. She is committed to the development of best practice of walking recovery based on principles of activity-dependent plasticity and the intrinsic biology of the nervous system.

- **Elizabeth Ardolino, PT, MS** Clinical Supervisor Locomotor Training Clinic Magee Rehabilitation Hospital, Philadelphia, PA  
Ms. Ardolino leads the NRN Locomotor Training staff at an out-patient rehabilitation clinic dedicated to advancing recovery of function after SCI using activity-based therapies. She is currently completing her PhD studies targeting measurement and recovery of balance.

NeuroRecovery Network Clinic Team:

The director and clinical team members from each site will be serving as primary instructors. The Locomotor Training teams at each site are comprised of specially trained and experienced physical therapists and rehab technicians, presently serving a variety of neurologic patient populations.

Target Audience:

Program directors, physical therapists, physical therapist assistants, and rehab technicians.

Translation of learning to the therapists' and technicians' home clinical environment is most effective if teams of therapists/technicians all participate in the training. Each clinic is strongly encouraged to send multiple staff members for the most beneficial training outcome. "Hands-on" skills development requires significant physical participation by all therapists and technicians.

**Dates & Site Information:**

**April 8-11, 2010**

**Dual Hosts** Kessler Institute for Rehabilitation & The Center for Rehabilitation at Boston Medical Center

**Training held at Kessler Institute for**

**Rehabilitation, West Orange, NJ**

Cherie Davide 973-243-6813

cdavide@kesslerfoundation.org

Jane Wierbicky, RN – 617-638-7316

Jane.Wierbicky@bmc.org

**May 20-23, 2010**

Shepherd Center - Atlanta, GA

Diane Johnston, MSPT - 404-367-1386

diane\_johnston@shepherd.org

**July 15-18, 2010**

**Dual Hosts** Frazier Rehabilitation Institute & Ohio State University Medical Center

**Training Site to be Determined**

Mark Sheridan- 1-866-540-7719

Mark.Sheridan@jhsfmh.org

**October 21-24, 2010**

Magee Rehabilitation Hospital - Philadelphia, PA

Mary Schmidt Read, PT, DPT, MS -215-587-3151

mschmidt@mageerehab.org

**November 4-7, 2010**

The Institute for Rehabilitation & Research

Houston, TX

Rhonda Abbott, PT - 713-797-5709

Rhonda.Abbott@memorialhermann.org

University of Florida will provide continuing education contact hours for each course.



**College of Public Health  
and Health Professions**

*Physical Therapy*

**UNIVERSITY of FLORIDA**

**Registration Form:**

*Locomotor Training Principles and Practice:  
An Activity-Based Therapy Course*

Location and Date You Plan to Attend:

\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Organization \_\_\_\_\_

Mailing Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Daytime Phone \_\_\_\_\_

Email Address \_\_\_\_\_

Work Setting \_\_\_\_\_

Registration Fees: # of Persons

Day 1 only: \$125 per person \_\_\_\_\_

Day 1-4: \$995 per person \_\_\_\_\_

Team of 3-5 \$2895 \_\_\_\_\_

**Please make checks payable to the facility where you will be attending this course.**

Amount Enclosed: \$ \_\_\_\_\_

**Cancellation of registration within 2 weeks of the start of the course will result in forfeit of registration fee. All other cancellations will be assessed 25% of registration fee.**

**Registration is NOT transferable between NeuroRecovery Network Facilities.**

**More information is available at:**

**[www.ChristopherReeve.org](http://www.ChristopherReeve.org)**



**CHRISTOPHER & DANA REEVE FOUNDATION  
NEURORECOVERY NETWORK**



# Locomotor Training Principles and Practice

an Activity-Based Therapy Course