



Posture & Torso Alignment for Pediatric Neuromotor Training

A Certified TheraTogs™ Fitter (CTF) Level I Course with Supporting Sciences & Strapping Strategies

8.0 contact hours • CEUs for PT's & Orthotists • **LEVEL:** Beginner to Intermediate

COURSE SUMMARY

This introductory program features a review of relevant pediatric orthopedic issues and sciences pursuant to neuromotor re-education for posture and torso alignment, including:

- Skeletal modeling mechanisms and influences
- The role of the somatosensory system in postural control acquisition and movement
- Fundamentals of S.A. Sahrman's muscle balance theory
- Practice-related skills acquisition

Attendees will validate their understanding of these principles and issues in the afternoon lab session, using the TheraTogs Posture & Torso Alignment system. Grouped in teams of three, attendees will be guided through a series of donning and strapping applications that demonstrate the biomechanical principles and management techniques reviewed in the morning session. Attendees who successfully complete the on-site practicum exam will receive a Certified TheraTogs Fitter (CTF) Level I credential.

COURSE OBJECTIVES

Seminar participants are expected to be able to:

- Name 5 physical/physiological systems that undergo adaptation to a "history of use" – example, skeleton.
- Explain the "gold" in the "Golden Age" of skeletal modeling.
- Describe somatosensory input and relate it to postural control acquisition and maintenance. Demonstrate your understanding of postural control acquisition and maintenance during lab, using one or more TheraTogs applications appropriate to postural control.
- Explain the role of righting reactions in daily function. Demonstrate your understanding of the role of righting reactions in daily function during lab, using one or more TheraTogs applications appropriate to righting reactions.
- Relate postural alignment to muscle recruitment strategies needed for upright maintenance. Demonstrate your understanding of postural alignment and its relation to muscle recruitment strategies during lab, using one or more TheraTogs applications appropriate to postural alignment and a variety of muscle recruitment strategies.
- Discuss the role of practice in sensory-motor learning. Demonstrate your understanding of the role of practice in functioning alignment during lab, using one or more TheraTogs applications appropriate to sensory-motor learning.
- Relate postural control acquisition to limb use for function. Demonstrate your understanding of the role of postural control acquisition as it relates to limb use during lab, using one or more TheraTogs applications appropriate to postural control.

- Discuss the sequential acquisition of core antigravity muscle function, muscle balance, and the influence of body weight distribution on muscle recruitment. Demonstrate your understanding of the core antigravity muscle function, muscle balance, and the influence of body weight distribution on muscle recruitment during lab, using one or more TheraTogs applications appropriate to influencing muscle function, muscle balance, and weight distribution.
- Relate postural alignment and foot position to body weight distribution on the feet.
- Describe normal (ideal) weight distribution on the foot segments in standing position in preschoolers and adults. Demonstrate your understanding of normal weight distribution in standing during lab, using one or more TheraTogs applications appropriate to influencing weight distribution.
- Name the principles of motor learning as they relate to CNS maturation, interest in environment, opportunity, practice, and cortical mapping.

COURSE SCHEDULE

Start	Topic	Start	Topic
7:30	Register & settle in	11:15	Videotaped case presentation
8:00	Introduction (<i>CELL PHONES OFF, PLEASE!</i>)	11:45	Questions and Discussion
8:15	Foundations in the Sciences: Skeletal Modeling Mechanisms	12:30	Lunch (60 minutes: on your own)
8:30	Foundations in the Sciences: The Somatosensory System & Postural Control	1:30	TheraTogs PTA Donning and Strapping Labs
9:15	Foundations in the Sciences: Muscle Balance Theory Applied to Motor Development, Movement Strategies, & Physiologic Adaptation	PRN	Break (15 minutes)
10:15	Break (15 minutes)	5:00	Review of posture and torso alignment principles
10:30	Review of Assessment Procedures for Standing and Sitting Posture in the Sagittal Plane	5:30	Clean up, turn in course evaluations and adjourn.
4.5	Didactic contact hours	3.5	Lab contact hours
		8.0	Total contact hours

TARGET AUDIENCE: Progressive GaitWays is committed to the fostering of collaborative and educated team management of people with complex neuromotor problems. Therefore, this course is open to a range of clinicians who are likely to work together to maximize physical function as a rehabilitation team, including physical therapists, orthotists, occupational therapists and speech pathologists.