

New Paradigms in Foot & Ankle Deformity Management with Serial Casting – Why & How



Telluride, Colorado • August 6-11 (noon), 2012

Instructor: Beverly Cusick, PT, MS, COF

Dates: August 6-11, 2012 (5.5 days - Monday through Saturday noon).

Sponsor: Progressive GaitWays of Telluride, Colorado

Location: Deep Creek School, Telluride, CO

Maximum Enrollment: SOLD OUT

This is a semi-private tutorial.



Program Description & Schedule:

Tuition: \$1100.00 - Payable on line in full or in 3 installments - includes the following:

- *Legs & Feet: A Review of Musculoskeletal Assessments* (2005) by Beverly Cusick - DVD
- *Foot Talk* (2009) by Beverly Cusick - DVD - Introductory lecture on functional foot and ankle anatomy and biomechanics with accompanying PowerPoint handout on CD
- *Serial Casting and Other Equinus Deformity Management Strategies* (2010) by Beverly Cusick
- A 5-piece Assessment Tool Kit
- A (large) set of illustrated course handouts
- A CD loaded with topic-specific references
- Well-equipped hands-on practice labs
- A small (6:1) student-to-instructor ratio, allowing you to ask all your questions.
- An on-site library of relevant reference articles and texts made available for your review.

Shared Housing: \$450.00 - Comfortable housing and meals from August 5th (arrival) through August 12th (AM departure) at the Deep Creek Stone House and “Chez Taylor” – the latter for a maximum of 2 attendees who wish to arrive earlier than August 5 and/or stay later than the 12th. Expect to share a bedroom with a same-sex course participant.

**REGISTRATION IS FIRST-COME, FIRST-SERVED...
SPACE IS LIMITED, SO MAKE YOUR RESERVATION EARLY!**

Course Description

LEVEL: INTERMEDIATE – Precourse readings and review materials are assigned in order to open more contact time for labs and videotaped cases. Enrollees are expected to arrive prepared.

TARGET AUDIENCE: This course is designed for the practitioner who has experience in working with children with CNS neuromotor dysfunction, including physical therapists, orthotists, pediatric orthopedists, and physical medicine and rehabilitation physicians. We believe that team education fosters more effective teamwork.

The content covered in this program includes the following topics:

- The emerging sciences of postural control acquisition and maintenance, including the role of the somatosensory system as it is currently understood in relation to load-bearing alignment of the torso, lower limbs, and feet.
- Foot and ankle functional anatomy, biomechanics, development, and pathomechanics in relation to body weight orientation over the base of support and to designing orthotic modifications to optimize foot development and function.
- Body weight distribution on the foot and through load-bearing joints as a causative factor in contracture formation, early onset of pain, and degenerative joint disease.
- Muscle physiology and pathophysiology in the presence of chronic use of compensatory postural control mechanisms while distinguishing spasticity from connective-tissue contractility and muscle transformation.
- The effectiveness of stretching exercises in contracture reduction and management.
- The kinesiology and pathokinesiology related to - and in support of - the safe and effective use of below-knee casts and a variety of orthotic interventions designed to improve postural alignment and control and to reduce developmental, flexible foot and ankle deformities that commonly develop in the presence of central nervous system dysfunction, hypotonia, and ligament laxity in childhood. Discussion of orthotic options includes Elaine Owen's Tuned AFO/Footwear Combinations, heel lifting and weight-line training, orthotic posting and foot packaging principles and strategies, positioning, resting splints, stretching, and serial casting.

Common developmental foot deformities are identified and described in terms of plane-based anatomical components. Musculoskeletal assessment procedures are reviewed as the findings lead the clinician to a systematic clinical decision-making process regarding orthotic design in terms of desired load-bearing foot and limb joint alignment, magnitude of segment enclosure, degrees of freedom provided or restrained, and posting options. Soft-tissue extensibility findings are also used in the documentation of the effects of assorted orthotic intervention strategies.

Labs feature closely-supervised trials of several ankle and foot assessment procedures, with findings applied to orthotic posting and design. Materials will be provided for an introductory practice lab on undertaking on-site posting trials to preview effects of proposed orthotic modifications, and for a day of training in fabrication of 3 types of below-knee cast: plaster and SoftCast combination, FlexCast, and a removable footboard-Flexcast combination.

Course Objectives

Participants completing the *seminar portion* of this course are expected to be able to:

- Describe, in plane-based terminology, the motions of the joints and various bones of the foot in the open and closed kinetic/kinematic chains.

- Discuss the relationship between joint alignment and related muscle function in terms of joint axis inclination, muscle and loading force vectors, lever arms, and resultant moments.
- Describe the role of the foot and ankle sensory receptors and weight distribution on the foot in the achievement and maintenance of postural control in standing and gait.
- Explain the clinical rationale for using specific assessment techniques to identify features of soft tissue extensibility, joint mobility, and structural alignment in the ankle and foot.
- Discuss the reported reliability and validity of common clinical tests for spasticity.
- Distinguish between spasticity, connective-tissue contractility, and soft-tissue transformation, and discuss management implications.
- Discuss the physiology and functional significance of R1 (first-catch) end range of motion.
- Explain the physiologic and structural changes that are known to occur in chronically over-recruited muscle and surrounding tissues following a history of recruitment for maintenance of verticality.
- Distinguish between dominance and strength within a muscle force couple.
- Upon discovering a dominant muscle, name 3 related areas of concern.
- Describe orthotic posting in sagittal and frontal planes, and discuss posting objectives.
- Discuss the purposes of weight line training in foot and ankle deformity management re proprioception and muscle recruitment strategies used for postural control.
- Name 5 features that identify a sound developing foot.
- Identify the deformities of the foot and ankle that occur most commonly in children or adults with CNS upper neuromotor dysfunction, and describe the components of illustrated deformities at each joint in plane-based terms.
- Determine whether a deformity meets the criteria for intervention with heel-posting in ankle plantarflexion, serial casting, an R-wrap© orthosis, stretch splinting, and/or positioning.
- Explain the rationale for instituting strengthening and range-maintenance measures after restoring soft tissue extensibility.
- Discuss the limitations of stretching exercise as a deformity management tool.

Lab Participants. Participants completing the **lab sessions** of this course are expected to be able to:

- Achieve novice skill level in musculoskeletal assessment of the ankle and foot in the open and closed chains.
- Bring the principles of orthotic posting to the findings obtained in assessment lab, and formulate an orthotic design plan.
- Demonstrate novice skill in undertaking an informed, targeted, temporary and exploratory posting trial.
- Demonstrate novice skill level in the fabrication and posting of 2 types of below-knee cast used for contracture reduction.

Program Schedule

The 6 days and evenings on campus will allow time to review handouts, use the library, repeat lectures if needed, and/or practice procedures. This schedule will flex to try to accommodate the abilities and interests of the group.

Continental breakfast will be ready at 8:00 daily.

Day 1: Seminar

8:45	Register and settle in.	2:00	Short Break
9:00:	Review of Functional Anatomy & Closed-Chain Function of the Subtalar & Midtarsal Joints	2:15	Muscle Balance Theory Applied to the Foot and Ankle (or, Are You Still Stretching?)
10:00	Break	3:15	Short break
10:30	Ideal Ankle, STJ and MTJ Function in Gait – The Swing Limb Torque Generator	3:30	Ankle ROM Assessment – Review of Procedures and Significance of Findings.
12:00	Lunch	4:30	Discussion/questions
10:00	Break	5:00	Adjourn
1:00	The Somatosensory System in Postural Control Development & Maintenance - Focus on Foot & Ankle		Homework assignment tonight: Read section on Muscle Pathophysiology. <i>Dress in shorts or stretchy pants tomorrow</i>

Day 2: Ankle and Foot Assessments Lab (Bring Shorts Today)

8:30	Assessing the Foot – Open-Chain Procedures	1:45	LAB: Repeat OKC Assessments - different partner
9:30	LAB: Open-Chain Assessments: Foot Geometry, Joint Mobility, and Soft Tissue Extensibility	2:30	Break food available – graze at will
10:30	Break food available – graze at will	3:00	LAB: Foot Assessments with Pediatric Volunteers
12:00	Lunch	5:30	Adjourn
1:00	LAB: Closed-Chain Foot Assessments		<i>(Independent Study (optional))</i>

Day 3: Pathomechanics, Posting, and Orthotic Design

8:30	Pathomechanics of Triceps Surae Hypoextensibility & Common Foot Design Problems: Posting Implications	1:30	Developmental Foot & Ankle Features
		2:30	Break
10:30	Break	3:00	Workshop: Use assessment findings to plan orthotic/posting designs
11:00	Name That Foot Deformity!	3:30	LAB: Orthotic Posting Trials with yesterday's volunteers
12:00	Lunch -	5:15	Questions / discussion
1:00	Videotaped Case Studies on Video	5:30	Adjourn <i>(Independent Study (optional))</i>

Homework tonight: Read Hypoextensibility Management-A , the 2nd section.

Day 4: Seminar & Lab (Bring Shorts Today)

8:30	Lecture Review / Repeat Opportunity (optional)	1:30	
9:00	Hypoextensibility Management: Positioning, Neurolytics, Splinting	2:30	Break food available – graze at will
10:00	Development of Kinetics in Gait – Power Sources, Load Line Characteristics	2:45	Review of FlexCasting Materials
10:30	Break	3:00	Demo & LAB: FlexCast Fabrication & Posting Demo & Lab
11:00	Serial Casting: Precautions, Contraindications, Limitations, & Guidelines	5:30	Clean up
12:00	Lunch – <i>Change into lab clothes for cast fab</i>	6:00	Adjourn

Wear shorts or stretch pants tomorrow

Day 5 – Continued Labs (Bring Shorts Today)

8:30	LAB: Positioning the Patient and Rehearsing the Cast Molding Grip	1:00	Demo: Footboard & Footboard FlexCast Fabrication
9:00	DEMO & LAB: Combo Cast Fabrication & Posting	2:30	Break
10:30	Break food available – graze at will	3:00	LAB: Make cast of choice
10:45	LAB: Combo Cast Fabrication & Posting	5:30	Clean up
12:00	Lunch	6:00	Adjourn

Please complete & submit your course eval before departing.

Day 6 – Morning only

8:30 to 11:30	Extended Lab Time Practice with supervision: <ul style="list-style-type: none">▪ Assessment procedures▪ Casting procedures Review cases to derive management strategies.
11:30	Clean up and adjourn.

Thank you, and safely home.

Registration Form



Mail or fax this completed form with your tuition payment. Upon registration, you'll receive an enrollment package with required pre-course readings & review materials.

New Paradigms in Pediatric Foot & Ankle Deformity Management with Serial Casting - Why & How		DATES August 6-12, 2012	COURSE # PG 081201
Enrollment closes at 6 qualified clinicians (registered PTs, physicians, certified orthotists) on a first-come, first-served basis. Payment required to hold your enrollment reservation.			
Name:		(Circle one)	PT OT CO CPO MD OTHER
W O R K	Facility:	Orthotists - Certificate #:	
	Department:		
	Street:	Building#	Box or Room#
	City/State/Zip:		
	Phone:	Email:	Fax:
SHIP PRE-COURSE MATERIALS TO:		<input type="checkbox"/> WORK ADDRESS	<input type="checkbox"/> HOME ADDRESS
H O M E	Street:		
	City/State/Zip:		
	Phone:	Email:	Fax:

TUITION FEE: \$1100.00 plus SHARED ROOM & BOARD: \$450 - includes housing & meals from August 5 PM through August 12 AM, or any part of that range of dates.

Total due: \$1550.00		Check what you're paying for:		
		<input type="checkbox"/> \$1100.00 Tuition <input type="checkbox"/> \$450.00 Room & Board		
P A Y M E N T	Visa / MasterCard #	Exp. Date:	3-digit code:	
	Signature:			
	By signing above you authorize Progressive GaitWays, LLC to charge your credit card for the stated price of the course tuition and/or room & board, as indicated in the checkboxes above. IF you selected the partial payment option at right, you authorize us to charge your credit card in three automatic payments for the total charges, plus a processing fee of \$10.00 for each of the two final installments.		<input type="checkbox"/> YES! Please charge my credit card in three monthly increments, plus a \$20.00 administrative fee. I understand I will be charged \$600.00 for the first installment and \$485.00 each for the remaining two installments, totaling \$1570.00.	
	OR Pay by Check #			

Cancellation Policy: ENROLLMENT IN THIS COURSE IS LIMITED - CANCELLATIONS WILL SERIOUSLY IMPACT ITS SUCCESS.

- If you can't attend, you can send another qualified clinician in your place; however, Progressive GaitWays will not be responsible for any financial arrangements, refunds or exchanges between you and your replacement.
- If you cancel on or prior to June 15, 2012 and cannot find a suitable replacement, we will refund your housing fee plus \$500 of your paid tuition. You keep all the pre-course tools and materials.
- If you cancel after June 15, 2012, we refund your housing fee, you forfeit your entire tuition, and you keep all the pre-course tools and materials.

**FAX FORM TO: 866-886-7736 • OR • EMAIL FORM TO: ADMIN@GAIWAYS.COM • OR • MAIL FORM & CHECK TO:
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SOLD OUT!