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## Course Sponsorship Opportunities Offered by Progressive GaitWays, LLC

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### CONTINUING PROFESSIONAL EDUCATION IN

### Principles and Practices in Rehabilitation for Children and Adults with CNS Dysfunction

Progressive GaitWays is dedicated to providing top-quality, content-rich educational resources in a variety of forms (lectures, labs, books, videos, and DVDs) to clinicians in rehabilitation. We welcome the opportunity to work collaboratively with medical facilities and clinical practices to produce training courses and events that raise the skills and working knowledge of the attendees.

Our lead instructor and content developer is Beverly ("Billi") Cusick, MS, PT, COF – an established pediatric rehabilitation authority and well-known educator who has been bringing her dedication, experience, and passion to the classroom for over 25 years. Our other faculty members are senior clinicians and educators, selected and personally trained by Ms. Cusick to ensure that they deliver the highest quality of educational content.

Sponsorship opportunities for this course come in two forms:

§ **Full Sponsorship, Public Course.** Your facility or company hires a Progressive GaitWays faculty member to teach a course for appropriate clinicians from within and outside your agency. The "clinical public" – that is, any medical clinicians with a practice and experience considered to be appropriate to the course content – is invited to attend.

Your organization assumes responsibility for marketing and hosting the course, for administering enrollment and managing all logistics (with our help), and for covering all training-related costs and expenses. In return, as full sponsor, your facility enjoys banking the bulk of any profits.

§ **Full Sponsorship, Private Course.** Your facility or company hires a Progressive GaitWays faculty member to teach a course or offer a presentation to your internal or contract staff. Registration is not offered to the clinical public. Your organization is responsible for hosting the course, for managing all logistics (with our help), and for covering all training costs and expenses.

**Note:** Unless otherwise noted, all sponsored courses require a \$500 deposit to confirm and hold the course schedule dates that have been previously determined by mutual consent. Course objectives and content are improved on an ongoing basis, so final course specifications may vary slightly from the enclosed descriptions.

All of Progressive GaitWays' courses are offered to clinicians from various health sciences who typically work together in rehabilitation, including physical and occupational therapists, orthotists, and physicians in rehabilitation medicine and orthopedics. Our experiences have convinced us that a common understanding of principles and nomenclature among teams of practitioners fosters more effective, collaborative, clinical decision-making and management.

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## Course Descriptions

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The following descriptions detail our standard course offerings. Each description includes approximate costs and fees for course sponsorship or co-sponsorship (if applicable).

### **Part 1: Developmental and Closed-Chain Biomechanics -- Implications for Orthotic Selection, Serial Casting, Rehab Management, and TheraTogs™ Applications for Neuromotor Re-Education**

This 7.5 day program offers experienced clinicians a range of approaches to management of lower extremity deformity and movement disorders in children and adults with neuromotor dysfunction. The level of this course is intermediate to advanced. The seminar component features a thorough review of the plane-based terminology used to accurately and clearly identify components of alignment, function and deformity. Ms. Cusick reviews skeletal modeling processes, developmental features of lower extremity skeletal design and joint alignment, the biomechanics of the foot and ankle, and of the closed kinetic chain, Sahrman's muscle balance theory, and new findings in muscle transformation, motor learning, and the kinetics of gait - all of which are applied to habilitation strategies including serial casting, orthotic selection and design, patella alta taping, and to TheraTogs strapping applications.

Lab sessions offer participants several opportunities to gain novice-level skills in executing 15 musculoskeletal assessment techniques for the torso and lower extremities, patella alta taping, and TheraTogs™ donning and strapping techniques.

#### **Course Objectives - Part 1:**

- § Recognize the modeling influences of certain movement components and gait patterns, both normal and compensatory, on bone structure and joint alignment in the lower extremities.
- § Define torsion, antetorsion, version, anteversion, calcaneal torsion, planar dominance, varus, valgus, and plane-referenced alignment and movement features.
- § Use specific musculoskeletal assessment techniques to identify features of alignment and structure in the lower extremity, and discern proximity to known age-related norms.
- § Discuss the lower-extremity closed-chain relative to orthotic and taping interventions.
- § Accurately identify a variety of foot deformities common to children and adults with CNS dysfunction, according to their specific joint deviations and plane-based descriptors.
- § Explain the transformation of muscle and connective tissues due to persistent chronic recruitment.
- § Discuss muscle length and related capacity for contractile force generation.
- § Explain the principles of relative flexibility and the length-tension relationship as they apply to muscle function and to taping for neuromuscular re-education in the population.
- § Explain the principles and precautions pertaining to the use of taping techniques for this population.
- § Explain the physiologic rationale for using serial casting and other nonsurgical methods of gaining soft tissue extensibility.
- § Apply principles of kinetics in gait to orthotic prescription and the selection of new rehabilitation strategies.
- § Discuss the goals of orthotic intervention, using Perry's five criteria for efficient gait.
- § Discuss the purposes, advantages and disadvantages of using splints as a management intervention for children. Distinguish between splints and orthoses and explain.
- § Discuss the advantages and disadvantages of various designs of LE splints and orthoses, including the R-Wrap, and explain the limitations of existing orthotic efficacy research.
- § Explain the principle of posting, and give examples in plane-based context as they apply to casting and to orthotic design, and to the closed kinetic chain.
- § Achieve novice skill level in using tape to reduce patella alta.
- § Achieve novice skill level in using TheraTogs™ to enhance movement training and posture.
- § Bring knowledge of developmental orthopedics, muscle transformation, and the closed kinetic chain to the assessment of at least one child or adult with neuromotor deficit, and suggest logical taping, orthotic hypoextensibility management and therapeutic exercise interventions.

### Fixed (in bold) and Estimated Costs – Part 1:

(Estimated costs are high to assure a safe margin for your budget.)

#### Full Sponsorship of Public or Private Course

- § **\$8500 honorarium (\$750 DEPOSIT) for primary instructor, Beverly Cusick**
- § **\$60 per attendee for pre-course DVD & tool kit**
- § ~\$65 per attendee for course handouts & taping lab materials
- § ~\$1800 in travel-related expenses for instructor
- § ~\$400 in shipping & logistics support
- § Advertising, marketing, direct mail - \$TBD
- § Facilities & catering - \$TBD

#### Full Sponsor Capacity Limitations and Impacts

- § Attendance in all didactic (lecture) sessions is limited only by available space. Sponsor may adjust the tuition accordingly and invite seminar-only enrollees after lab sessions are filled.
- § All lab sessions are limited to 15 attendees (who must attend all didactic sessions) unless the full sponsor hires a GaitWays-approved assistant lab instructor. Anticipated cost: \$450/day plus travel expenses. Maximum enrollment with an assistant lab instructor is 24 attendees.
- § Full sponsors pay \$40/attendee for each enrollee in excess of 50

### Part 2: Practicum Sessions in Below Knee Serial Casting and Lower Extremity Splint Fabrication Techniques

This 2-day course is a sequel to *Part 1: Developmental/Closed-Chain Biomechanics...* for those who wish to build on their Part 1 knowledge base, and to acquire novice-level skill in serial casting and splint fabrication techniques. Ms. Cusick introduces participants to the fabrication of 3 types of progressive below-knee casts - a plaster and SoftCast™ combination, a FlexCast© Preparatory AFO, and a footboard FlexCast combination - and to a variety of lower extremity splints made with Aquaplast-T™.

#### Course Objectives – Part 2:

- § Appreciate and implement the special properties of various casting and splinting materials.
- § Achieve novice skill in the fabrication of splints for the knee, foot, and ankle, and the fabrication of 3 types of casts for restoring soft tissue extensibility to the foot and ankle.

### Fixed (in bold) and Estimated Costs – Part 2:

(Estimated costs are high to assure a safe margin for your budget.)

#### Full Sponsorship of Public or Private Course

- § **\$2100 honorarium (\$500 DEPOSIT) for primary instructor, if course is held 1 day after Part 1 course. \$3000 honorarium if Part 2 is held on a later date.**
- § ~\$20 per attendee for course handouts & taping lab materials
- § ~\$125 per attendee for lab supplies for casting and splinting lab sessions
- § ~\$300 in travel-related expenses for instructor, if course is held contiguous to Part 1; add ~\$700 in travel expenses if course is held on later date.

- § ~\$100 in shipping & logistics support; add ~\$200 if course is held on later date.
- § Advertising, marketing, direct mail - \$TBD
- § Facilities & catering - \$TBD

#### Full Sponsor Capacity Limitations and Impacts

- § Attendance is limited to 15 attendees unless the full sponsor hires a GaitWays-approved assistant lab instructor. Anticipated cost: ~\$450/day plus travel expenses.
- § Maximum enrollment with an assistant lab instructor is 24 attendees.

## Serial Casting the Foot and Ankle: Why and How

This 4-day intermediate-level course features a study of minimum soft tissue extensibility requirements for efficient lower extremity functional mobility, and a review of the biomechanics of the foot and ankle complex in the open and closed chain. Musculoskeletal assessment procedures are reviewed in seminar and in supervised lab sessions, as the findings apply to proper documentation of casting results and a systematic approach to clinical decision-making regarding molding techniques, setting alignment goals, and posting in casts and in post-casting orthoses.

Rationale for various hypoextensibility management interventions is supported by a current literature review regarding muscle transformation secondary to chronic recruitment. Spasticity is distinguished from tone and from soft tissue pathophysiologic adaptation, with application to clinical implications. Discussion includes the use of the contoured plaster footboard, the R-Wrap© orthosis, neurolytics, positioning, stretching, and serial casting. Lab session participants are introduced to 3 below-knee casting techniques in supervised lab; a plaster/SoftCast combination cast, a Flexcast© made with SoftCast and DeltaCast Conformable casting tapes, and a footboard/Flexcast combination cast.

This course is designed for the practitioner who has experience in working with children or adults with neuromotor dysfunction.

### Course Objectives – Serial Casting:

#### Seminar Portion

- § 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 arm, and resultant moment.
  - § Achieve novice skill level in musculoskeletal assessment of the ankle and foot in the open and closed chains.
  - § Bring the principles of orthotic posting and kinetics to below-knee cast design and cast fabrication.
  - § Identify the deformities of the foot and ankle that occur most commonly in children or adults with upper neuromotor dysfunction, and describe the components of deformity at each joint in plane-based terms.
  - § 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 physiology and functional significance of R1 (first-catch) end range of motion encountered on assessing passive extensibility in healthy muscle groups.
- § Explain the physiologic and structural changes that occur in chronically over-recruited muscle and its surrounding connective tissues, relative to the active length-tension relationship and EMG output.
  - § Explain the physiologic rationale for undertaking serial casting gradually and without force.
  - § Determine whether a deformity meets the criteria for intervention with serial casts, an R-wrap orthosis, stretch splinting, and/or positioning.
  - § Explain the rationale for instituting range-maintenance measures after restoring soft tissue extensibility.
  - § Discuss the limitations of casts as a management tool.

#### Lab Sessions

- § Achieve novice skill in executing musculoskeletal assessment procedures to ascertain ankle dorsiflexion ROM, foot configuration in full congruity, subtalar joint, first ray, and first MTP joint ROM, and relaxed calcaneal stance.
- § Achieve novice skill in fabricating at least 1 of 3 types of below-knee cast for contracture reduction: the plaster and 3M™ SoftCast combination cast and the FlexCast© Preparatory AFO, the latter with or without a footboard insert.

**Estimated and Fixed (in bold) Costs – Serial Casting:**

(Estimated costs are high to assure a safe margin for your budget.)

Full Sponsorship of Public or Private Course	Full Sponsor Capacity Limitations and Impacts
§ <b>\$5000</b> honorarium for primary instructor, Beverly Cusick	§ For seminar sessions, attendance is limited only by available facilities.
§ <b>\$65</b> per attendee for pre-course video, tool kit & pre-course readings	§ Participation in lab sessions is limited to 15 attendees unless the full sponsor hires a GaitWays-approved assistant lab instructor. (Others may audit lab sessions.)
§ ~\$40 per attendee for course handouts	§ Anticipated cost for assistant lab instructor: ~\$450/day plus travel expenses.
§ ~\$70 per attendee for casting lab supplies	§ Maximum enrollment in lab sessions <u>with</u> an assistant lab instructor is 24 attendees.
§ ~ \$1500 in travel-related expenses for instructor	
§ ~\$400 in shipping & logistics support	
§ Advertising, marketing, direct mail - \$TBD	
§ Facilities & catering - \$TBD	

## **New Rehab Strategies, Orthotic Modifications and Selection, Patella Alta Taping, and TheraTogs™ Applications for Neuromotor Re-education**

This 4-day intermediate-level course has received enthusiastic and lasting acclaim from participating clinicians for high academic standards, the clinical relevance of the content, and the energizing and practical new and effective management ideas. With a focus on developmental orthopedics and the management of foot and ankle deformities, Ms. Cusick briefly reviews numerous anatomical, physiologic, and functional factors that commonly operate in individuals with movement disorders related to central nervous system dysfunction.

In this course, Ms. Cusick organizes this complex body of information into key components of evaluation and management, as she reviews several new concepts that have emerged from research in the fields of kinetics, biomechanics, muscle physiology, pathokinesiology, neuromotor development, and rehabilitation.

### **Course Objectives – New Rehab Strategies:**

- § Identify 8 immature, normal, developmental features of spinal and lower extremity skeletal structure and joint alignment, and discuss related assessment procedures, management implications, and management precautions.
- § Define torsion, version, antetorsion, anteversion, retroversion, varus, valgus, abductus, adductus, inversion, eversion, pronation, supination, equinus, and calcaneus.
- § Discuss the clinical and functional relevance of the passive and active length-tension relationships, particularly R<sub>1</sub> (a.k.a. L<sub>1</sub>, L<sub>0</sub>, and "first catch") end range.
- § Distinguish between spasticity, tone, and extensibility, and apply the definitions to management modalities such as dorsal rhizotomy, cryotherapy, neurolytics, stretching, positioning, serial casting, and maintenance orthoses.
- § Describe the pathophysiologic influence of excessive muscle recruitment on muscle, connective tissue, nerve, blood vessels, and skin.
- § Discuss the relationship between muscle transformation, strength, and EMG activity.
- § Distinguish between kinetics and kinematics with regard to gait analysis.
- § Relate gait pathomechanics to the issue of kinetics, and to potential kinetic influences of orthoses of different configuration.
- § Discuss several different conservative hypoextensibility management methods and principles.
- § Explain targeting as a therapeutic management principle, relative to orthotic, splinting, and casting interventions.
- § Explain the concept of relative flexibility and apply it to TheraTogs interventions.
- § Distinguish between muscle dominance and strength and discuss strapping and taping implications.
- § Regarding patella alta taping and TheraTogs, discuss contraindications and precautions relative to skin care and underlying skeletal characteristics.
- § Use an organizational tool to sort the findings of a videotaped musculoskeletal, postural, and clinical gait assessment into descriptive categories with related intervention or management options.
- § Lab participants will achieve novice skill level in the donning and use of the TheraTogs™ orthotic strapping system.
- § Lab participants will achieve novice skill level in patella alta assessment and taping.

**Fixed (in bold) and Estimated Costs – New Rehab Strategies:**

(Estimated costs are high to assure a safe margin for your budget.)

**FULL SPONSORSHIP OF PUBLIC OR PRIVATE COURSE**

- § **\$6000 honorarium for primary instructor**
- § **\$60 per attendee for pre-course DVD & tool kit**
- § ~\$40 per attendee for course handouts
- § ~\$10 per attendee for taping lab supplies
- § ~ \$1500 in travel-related expenses for instructor
- § ~\$400 in shipping & logistics support
- § Advertising, marketing, direct mail - \$TBD
- § Facilities & catering - \$TBD

**FULL SPONSOR CAPACITY LIMITATIONS AND IMPACTS**

- § For seminar sessions on Days 1,2,3, and 4, attendance is limited only by available facilities.
- § Participation in Day 4 lab sessions is limited to 20 attendees unless the full sponsor hires a TTI-approved assistant lab instructor. (Others may audit lab sessions.)
- § Anticipated cost for assistant lab instructor: ~\$450/day plus travel expenses.
- § Maximum enrollment in Day 4 lab sessions with an assistant lab instructor is 40 attendees.

**CO-SPONSORSHIP**

Not available for this course. *New Rehab Strategies* is currently offered under full sponsorship only.

## Splinting the Foot and Ankle: Why and How

This 4-day intermediate-level course features a study of minimum soft tissue extensibility requirements for efficient lower extremity functional mobility, and a review of the biomechanics of the foot and ankle complex in the open and closed chain. Musculoskeletal assessment procedures are reviewed in seminar and in supervised lab sessions, as the findings apply to proper use of posting principles and molding techniques during splint fabrication. When Debbie Strobach, PT, MS, is on hand to assist, she presents a special lecture on "Splinting Tiny Feet". Rationale for various splint designs is supported by a current literature review.

This course is designed for the practitioner who has experience in working with children or adults with neuromotor dysfunction.

### Course Objectives – Splinting:

- § 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 arm, and resultant moment.
- § Achieve novice skill level in musculoskeletal assessment of the ankle and foot in the open and closed chains.
- § Describe the associations in joint function between the segments of the lower extremity closed-kinetic chain.
- § Apply the findings obtained in a foot and ankle assessment to orthotic modifications, including posting and enclosure.
- § Explain the principle of relative flexibility as it applies to orthotic intervention.
- § Discuss muscle length and related capacity for contractile force generation.
- § Accurately diagnose a variety of foot deformities common to children [and adults] with CNS dysfunction, according to their specific joint deviations and plane-based descriptors.
- § Explain the rationale for using the R-Wrap orthosis in managing foot deformity.
- § Explain the physiologic transformation of muscle and connective tissues in the context of chronic coactivation, and relate this problem to orthotic hypoextensibility management options.
- § Apply principles of kinetics in gait to orthotic design selection.
- § Discuss the problem of choosing one orthotic design to address all management problems for this patient population.
- § Describe orthotic designs that can promote calf muscle strengthening.
- § Explain the principle of targeting as a management strategy as it applies to orthotic intervention.
- § Explain the principle of reducing or introducing degrees of freedom as it applies to orthotic intervention.

### Objectives for Lab Attendees:

- § Achieve novice skill in executing musculoskeletal assessment procedures to ascertain ankle dorsiflexion ROM, foot configuration in full congruity, subtalar joint, first ray, and first MTP joint ROM, and relaxed calcaneal stance.
- § Achieve novice skill in fabrication of Aquaplast-T splints.

**Fixed (in bold) and Estimated Costs -- Splinting:**

(Estimated costs are high to assure a safe margin for your budget.)

**Full Sponsorship of Public or Private Course**


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§ \$5000 honorarium for primary instructor, Beverly Cusick	§ ~\$900 in travel-related expenses for assistant instructor
§ \$65 per attendee for pre-course video, tool kit & pre-course readings	§ ~\$350 in shipping & logistics support
§ ~\$1500 honorarium for assistant instructor, Debbie Strobach, PT, MS	§ Advertising, marketing, direct mail - \$TBD
§ ~\$45 per attendee for course handouts (2 parts)	§ Facilities & catering - \$TBD
§ ~\$100 per attendee for splinting lab supplies	
§ ~ \$1200 in travel-related expenses for primary instructor	

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**Full Sponsor Capacity Limitations and Impacts**

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- § For seminar portions, attendance is limited only by available facilities.
  - § Maximum enrollment in lab sessions with assistant lab instructor (Strobach) is 24 attendees.
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**Co-Sponsorship**


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Not available for this course. *LE Splinting* is currently offered under full sponsorship only.