Course Description, Objectives, and Schedule:
Pediatric Trunk Posture – The Significance of Extension

Presenter: Beverly Cusick, PT, MS, NDT, COF

Target Audience: Rehabilitation team members, including orthotists, physical therapists, occupational therapists, physical medicine and rehabilitation physicians, and pediatric orthopedists.

Description
The presenter discusses sensory, biomechanical, kinesiological, and neuromotor aspects of both normal and compromised development of trunk alignment and control. She describes the influence of postural alignment and control on movement acquisition and skills, and offers suggestions for science-based orthotic intervention.

Program Objectives
Attendees completing this program are expected to be able to:

- Describe the two fundamental kinesiologic ingredients for motor development and the expected age of their achievement.
- Explain the role of antigravity righting reactions in postural control acquisition and maintenance, and in preserving life.
- Explain the relationship between postural control and effective limb use.
- Describe the typical sensory-motor process for achieving trunk control and movement.
- Relate defective postural control to limb muscle contracture formation.
- Define muscle balance and muscle imbalance, and discuss related use histories in functioning joint alignment and resulting muscle strength.
- Bring Sahrmann’s muscle-balance-promoting management principles to a discussion of Pfeiffer, et al’s report of 2004 on the effects on trunk muscle strength and on postural control of providing orthosis-assisted (vs. orthosis-maintained) postural alignment.
- Participate in a discussion of the status of, and need for, research regarding the influences of common TLSO designs and wear schedules on muscle strength and postural control.
Schedule

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<tr>
<th>Start</th>
<th>Topic</th>
<th>Hours</th>
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<tbody>
<tr>
<td>5:30</td>
<td>An Overview of Developmental Changes in the Torso</td>
<td>.25</td>
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<td>5:45</td>
<td>Elements of Sahrmann’s Movement System Analysis in Orthopedic Development</td>
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<td>6:15</td>
<td>The Contributions of Postural Control Acquisition &amp; Maintenance to Orthopedic Development</td>
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<td>7:00</td>
<td>Biomechanical Advantages of Full Term Gestation in Orthopedic Development</td>
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<td>7:30</td>
<td>Proximal Before Distal: Strategies for Managing Muscle Imbalances Related to Movement Disorders</td>
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<td>9:00</td>
<td>Questions for Researchers</td>
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<tr>
<td>9:15</td>
<td>Questions &amp; discussion</td>
<td>.25</td>
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<td>9:30</td>
<td>Adjourn</td>
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Total contact hours – didactic: 4.00

Instructor Bio - Beverly (Billi) Cusick, PT, MS

Education:

1972 - BS in PT from Bouve College at Northeastern University (Boston) in 1972, summa cum laude.
1988 - MS in Clinical and College Teaching for Allied Health Professionals - Univ of Kentucky.

Work experience:

- 1 year – PT staff at (now) Spaulding Rehabilitation Center, Boston, MA
- 3 years – PT staff and Director for UCP Center, Lawrence, MA
- 9 years - PT staff at Children's Rehab. Center (now, Kluge Center), Charlottesville, VA.
- 3 years - PT Education faculty, College of Health Related Professions at MUSC, Charleston, SC, and Director of PT Services for the Div. Of Developmental Disabilities at MUSC.
- 1 year, consultant, Cardinal Hill Hospital's Head Trauma & Pediatrics teams – Lexington, KY.
- 4 years, assisting in the PT Department at Children's Hospital at Stanford, Palo Alto, CA.
- 23 years in private practice.

Publications:

- *Foot Talk* (2009), a 2-hour lecture on functional foot anatomy and closed chain biomechanics, accompanied by a set of Power Point handouts of the same lecture.
Several textbook chapters, articles for journals, conference proceedings, and professional newsletters, including a series (2006 and 2007) on Pediatric Orthopedics for the NDTA Network.

Clinical Teaching:

Guest lecturer for annual conferences of the APTA, the NDTA, and the American Academy of CP and Developmental Medicine, in the US and Canada; the British Association of Prosthetists and Orthotists; and the American Academy of Orthotics and Prosthetics. Instructor of more than 400 courses by invitation only in 18 countries. Associate Professor for the Rocky Mountain University of Health Professions – Pediatrics Program – Provo, Utah starting in 2006 to present.

Since 1993 Ms. Cusick has been consulting and practicing privately in or near Telluride, Colorado. There, she maintains a private practice, devoting most of her professional effort to generating literature and educational materials, to teaching, and to developing therapeutic products, including her invention, TheraTogs orthotic systems.

A curriculum vita is available upon request.

References:


Bly L. 2011. Components of Typical and Atypical Motor Development. Laguna Beach, CA; Neurodevelopmental Treatment Association; www.ndta.org


