Pediatric Trunk Posture
The Significance of Extension in Neuro-Orthopedic Development
Beverly Cusick PT, MS, NDT, COF/BOC – OR - Deborah Stack PT, DPT, PCS

TARGET AUDIENCE: Pediatric physical therapists, occupational therapists, orthotists, physical medicine physicians, and 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 on limb muscle contracture prevention and management in children with cerebral palsy. She offers clinical evidence and suggestions for improving postural alignment and control using SA Sahrmann’s treatment principles and orthoses, including the TherAlign Dragonfly™ TLSO system.

PROGRAM OBJECTIVES: Attendees completing this program are expected to be able to:

• Describe the two fundamental kinesiology ingredients for motor development and the typical sequence and expected age of their achievement.
• Explain the contribution of antigravity righting reactions to postural control acquisition and maintenance.
• Explain the relationship between body sway detection, postural control, and effective limb use.
• Relate defective postural control to limb muscle contracture formation in children with pyramidal-type cerebral palsy.
• 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 the effects on trunk muscle strength and on postural control of providing orthosis-assisted postural alignment.

SCHEDULE

<table>
<thead>
<tr>
<th>Start</th>
<th>Topic</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00</td>
<td>An Overview of Developmental Changes in the Torso</td>
<td>.25</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>6:45</td>
<td>Elements of Sahrmann’s Movement System Analysis in Orthopedic Development</td>
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<td>7:15</td>
<td>New Strategies for Optimizing Trunk Extension</td>
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<td>7:45</td>
<td>Questions &amp; discussion</td>
<td>.25</td>
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<td>8:00</td>
<td>Adjourn</td>
<td>Total Contact Hours: 2.0</td>
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References


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


