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## Evaluation of Short-Term Intensive Orthotic Garment Use in Children Who Have Cerebral Palsy

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**Purpose:** To evaluate the effectiveness of an orthotic undergarment on gait, balance, and life skills of children who have diplegic cerebral palsy (CP).

**Methods:** Five subjects (ages 7-13 years) with CP at Gross Motor Function Classification Scale level I wore a TheraTogs™ undergarment for 12 weeks. Data collection included Vicon® Motion Analysis, Bruininks-Oseretsky Test of Motor Proficiency, and Canadian Occupational Performance Measure at baseline; in and out of the garment after 12 weeks of wear; 2 months and 4 months after garment wear.

**Results:** Kinematic data indicated increased peak hip extension and correction of anterior pelvic tilt in stance during wear time. Composite gross motor scores on the Bruininks-Oseretsky Test of Motor Proficiency and Canadian Occupational Performance Measure scores improved significantly at the end of wear time.

**Conclusion:** When worn for a 12-week time frame, an individualized orthotic garment can improve gait and functional skills in some children with CP.

**Key Words:** *cerebral palsy, child, clothing, gait, human movement system, orthotic device, outcome assessment, physical therapy*