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# CP Research News

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## 1: *Pediatr Phys Ther.* 2008 Summer;20(2):173-8.

### **Stretching with children with cerebral palsy: what do we know and where are we going?**

Wiat L, Darrah J, Kembhavi G.

Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, Alberta, Canada. [lesley.wiat@ualberta.ca](mailto:lesley.wiat@ualberta.ca)

**PURPOSE:** To review research regarding mechanisms of muscle contracture in cerebral palsy (CP) and the effectiveness of stretching, and to discuss current physical therapy stretching practices. Community-based recreation opportunities that encourage flexibility and fitness are explored as alternatives to traditional therapy stretching approaches. **SUMMARY OF KEY POINTS:** Mechanisms of muscle contracture in children with CP are unclear and clinical research evaluating the effects of stretching is inconclusive. Recent shifts in thinking about the management of children with CP suggest an increased emphasis on flexibility, fitness, and participation in activities that are meaningful to children and families. **STATEMENT OF CONCLUSIONS:** Additional research is needed to explore the structural changes that occur in the shortened muscles of children with CP and the effects of stretching practices used in pediatric physical therapy. **RECOMMENDATIONS FOR CLINICAL PRACTICE:** Physical therapists can consider innovative alternatives that integrate flexibility and fitness goals with community-based recreation programs.

PMID: 18480717 [PubMed - in process]

## 2: *Dev Med Child Neurol.* 2008 May;50(5):399-40.

### **In vivo gastrocnemius muscle fascicle length in children with and without diplegic cerebral palsy.**

Shortland AP.

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Publication Types:  
Comment  
Letter

PMID: 18481373 [PubMed - in process]

**3: *Pediatr Crit Care Med.* 2008 Mar;9(2):186-91.**

**Outcome and prognostic factors in neonates with septic shock.**

Kermorvant-Duchemin E, Laborie S, Rabilloud M, Lapillonne A, Claris O.

AP-HP, Hôpital Saint-Vincent de Paul, Paris, Université Paris 5, Paris, France.  
elsa.kermorvant@svp.aphp.fr

**OBJECTIVE:** Few accurate data are available on the outcome of septic shock in the neonatal period. The objective was to describe outcome and to determine variables associated with death or adverse outcome in neonates with septic shock. **DESIGN:** Retrospective cohort study. **SETTING:** A tertiary neonatal intensive care unit in a university hospital. **PATIENTS:** All patients admitted to the neonatal intensive care unit over a 6-yr period meeting the following criteria: hypotension and/or need for intravenous fluid administration or vasoactive drugs, in the presence of proven or highly probable infection. **INTERVENTIONS:** None. **MEASUREMENTS AND MAIN RESULTS:** Main outcomes were 28-day mortality and adverse outcome at 18 months of corrected age, defined as death or severe sequelae (cerebral palsy, severe developmental delay, hearing impairment, blindness, or short bowel syndrome). Forty-eight infants were included. Follow-up data at 18 months were obtained for 46 of 48 infants. The 28-day mortality was 40% (19 deaths). Adverse outcome at 18 months of corrected age was observed in 24 of 46 infants (52%; death = 19, severe sequelae = 5). Twenty-eight percent of the infants were alive and had a normal examination at 18 months. Infants with adverse outcome had significantly lower gestational age, birth weight, Apgar score, weight at onset of sepsis, and pH and more often had gram-negative infection, fetal growth restriction, hypoglycemia, and thrombocytopenia. Significant predictors (multivariate analysis) of 28-day mortality and of adverse outcome at 18 months of corrected age were weight (kg) at the onset of sepsis (odds ratio 0.14, 95% confidence interval 0.03-0.55; odds ratio 0.21, 95% confidence interval 0.06-0.74, respectively) and gram-negative infection (odds ratio 10.1, 95% confidence interval 1.5-65.7; odds ratio 45.5, 95% confidence interval 3-637, respectively). **CONCLUSIONS:** Septic shock in the neonatal period has a very poor outcome. Data underscore the extreme vulnerability of very low birth weight infants to septic shock, particularly to gram-negative species.

PMID: 18477932 [PubMed - in process]

**4: *Zh Nevrol Psikhiatr Im S S Korsakova.* 2007;107(10):13-17.**

**Clinical, neurophysiologic and neuropsychophysiologic aspects of spastic forms of infant cerebral palsy in children of preschool and early school age. [Article in Russian]**

Shprakh VV, Lavrik SI, Starodubtsev AV, Domitrak SV.

Irkutskii gosudarstvennyi institut usovershenstvovaniia vrachei, Oblastnoi reabilitatsionnyi tsentr dlia detei i podrostkov s ogranichennymi vozmozhnostiami, Irkutsk.

Clinical, neurophysiologic and neuropsychophysiologic study has been conducted in 120 children with spastic forms of infant cerebral palsy (ICP) at the age 5-8 years. Developmental features and rates of the higher mental functions (HMF) have been investigated during medical-rehabilitation measures. The original complex of neuropsychophysiological testing programs allows to quantitatively and qualitatively estimate a degree of HMF development in children. The identification of clinical, neurophysiologic and

neuropsychophysiologic peculiarities promotes an increase of efficiency of medical-rehabilitation measures.

PMID: 18477974 [PubMed - as supplied by publisher]



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