**Baker A, Niles N,** Kysh L, Sargent B.Effect of early motor intervention on motor function of infants with or at high risk of cerebral palsy age 0-3 years: *a systematic review*

**Background.** Cerebral palsy (CP) is a lifelong disorder of movement caused by damage to the developing brain. It affects over 17 million people worldwide and is the most common physical disability in childhood.

**Purpose.** The objective of this systematic review is to evaluate the effect of early motor intervention on motor function of infants and toddlers with or at high risk of CP aged 0 to 3 years.

**Methods.** Nine databases were searched for randomized control trials (RCTs) on motor outcomes of motor interventions for infants and toddlers with or at high risk of CP. Level of evidence and risk of bias were assessed.

**Results.** Thirteen RCTs were included. Interventions included: Constraint-Induced Movement Therapy (CIMT, n=4), motor learning approaches (n=4), sensorimotor stimulation (n=2), early intensive therapy (n=1), treadmill training ( n=1), and whole body vibration (n=1). Results from high quality RCTs support that CIMT improved hand function of the more-affected hand (small to moderate effect size) and moderate quality RCTs support that motor learning approaches improved fine and gross motor function (moderate effect size).

**Conclusion.** CIMT and motor learning approaches are recommended to improve motor function of infants and toddlers with or at high risk of CP.Further rigorous research is needed with adequate sample sizes, well-controlled study designs, and stringent participant inclusion criteria to maximize the number of high-risk infants who will eventually be diagnosed with CP.

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