

Prechtl's General Movements Assessment – key evidence

Systematic review evidence (of large cohort studies in high-risk mainly pre-term infants) indicates that an abnormal General Movements (GMs) assessment score of 'absent fidgety' movements (i.e. the infant does not show tiny spontaneous movements of the neck, trunk and limbs in all directions with small amplitude, moderate speed and variable acceleration, which is a biomarker for neurological integrity) at 12–20 weeks corrected age is 95–98% predictive of cerebral palsy.

Furthermore any 'absent fidgety' abnormal GMs scores should trigger the need for further investigations, assessments and referral for early intervention based on 'high risk of cerebral palsy.'

Abnormal GMs accurately detects the likelihood of risk of cerebral palsy and detailed GMs assessment predicts later severity of cerebral palsy.

GMs can detect both mild and more severe forms of cerebral palsy¹.

CITATION	#EVIDENCE	#STUDIES	#PATIENTS	ACCURACY FOR CEREBRAL PALSY	QUALITY
Bosanquet 2013	Sys. Review	6	1358	Sensitivity = 98% Specificity = 91%	14/14
Burger 2009	Sys. Review	17	1830	Sensitivity = 92% Specificity = 82%	14/14
Darsaklis	Sys. Review	39	?	Sensitivity = 100% Specificity = 100%	14/14
Heinemen 2008	Sys. Review	7	?	No data in review	14/14
Spittle 2008	Sys. Review	5	344	Sensitivity = 83-100% Specificity = 57.96%	14/14

Normal GMs are shown to have high correlation with normal outcome, whilst abnormal GMs, in particular 'cramped synchronised' in the 'writhing' period followed by 'absent fidgety' (F-), has consistently shown the highest predictive value for cerebral palsy.²

1. Novak et al 2017. Early Accurate Diagnosis and Early Intervention in Cerebral Palsy. *JAMA Pediatr.* 2017; 171(9):897-907.
2. Bosanquet M, Copeland L, Ware R, Boyd R. A systematic review of tests to predict cerebral palsy in young children. *Dev Med Child Neurol* 2013; 55: 418-26.

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