

EARLY DIAGNOSIS

Early Detection of Cerebral Palsy

Authors (AACPDm Early Detection of Cerebral Palsy Care Pathway Team): I Novak (team lead), C Morgan (team lead), L Adde, N Badawi, J Blackman, R N Boyd, J Brunstrom-Hernandez, G Cioni, D Damiano, J Darrah, A-C Eliasson, L de Vries, C Einspieler, M Fahey, D Fehlings, D Ferriero, L Fetters, S Fiori, H Forssberg, A Gordon, S Greaves, A Guzzetta, M Hadders-Algra, R Harbourne, A Kakooza-Mwesige, P Karlsson, L Krumlind-Sundholm, B Latal, A Loughran-Fowlds, N Maitre, S McIntyre, G Noritz, L Pennington, D M Romeo, R Shepherd, A Spittle, M Thornton, J Valentine, K Walker, R White

<https://www.aacpdm.org/publications/care-pathways/early-detection>

Plain Language Summary

The early years are the most important for a child's brain development. Learning can be interrupted by brain injury in children with cerebral palsy. Early diagnosis of cerebral palsy enables: (1) children to receive specialist intervention when the greatest gains are possible from neuroplasticity; (2) prevention of complications; and (3) support to parents.

Unlike diabetes, no one test can be ordered, to conclusively diagnose cerebral palsy. Consequently, the diagnosis was historically made late between 12-24 months of age once it was clear that a child's movement such as walking or sitting was permanently delayed. Now an international clinical practice guideline shows that using 3 tests together in combination, enables early diagnosis of cerebral palsy at 12 weeks of age with over 95% accuracy. The 3 tests are: a brain scan (MRI) showing damage to the movement areas of the brain, plus a movement test where the child's movement is scored to be of low quality from video footage (General Movements Assessment), and a scored neurological test showing either asymmetries between the left and right or atypical postures (Hammersmith Infant Neurological Examination).

For some families, parents are the first to notice, "there is something wrong with my child". In children 5 months and older, screening for cerebral palsy should occur if the child cannot sit independently by 9 months of age or has an abnormally early hand dominance. MRI is not always safe or affordable in children aged between 2-12 months of age, because anaesthetic is required to help the child remain still in the scanner. An early diagnosis can still be made but will need to rely on the Hammersmith Examination and a parent completed checklist known as the Developmental Assessment of Young Children. No matter which tests are used, the aim of early diagnosis is to ensure early intervention, so that the child can live a healthy and included life.

