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Purdue Pegboard

Availability:	Available in the public domain; however testing requires additional devices (cost may vary). Devices may be purchased through multiple vendors: Lafayette Instrument Co. Psychological Assessment Resources (PAR)
Classification:	Exploratory: Cerebral Palsy (CP) Supplemental: Epilepsy, Neuromuscular Diseases (NMD), Spinal Muscular Atrophy (SMA), Myotonic Muscular Dystrophy (DM), and Congenital Muscular Dystrophy (CMD).
Short Description of Instrument:	Purpose: Assess fine motor speed, fine coordination and hand dexterity. Ages: 2 years, 6 months and older Alternative Language: This is a non-linguistic test that can be administered using Spanish directions. Time Estimate: 5–10 minutes Scoring Estimate: < 5 minutes Five subtests comprise the test; right hand (RH), left hand (LH), both hands (BH) and assembly. For the performance of the RH and LH subtests, participants use their right hand (dominant) and then left hand (non-dominant) to place as many pins as possible down the respective row within 30 seconds. The score of each subtest is the total number of pins placed by each hand in the allowed time. The BH subtest is a bimanual test where the participants use their right and left hand simultaneously to place as many pins as possible down both rows in 30 seconds. The score for this subtest is the total number of pairs of pins placed in 30 seconds. The assembly subtest requires that both hand work simultaneously while performing different tasks for 60 seconds. The score of this subtest is the total number of pins, washers and collars placed in 60 seconds. Each stage of the test is administered three times.

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Special Comments / Rationale:	<p>Purdue pegboard is one of the best methods that evaluate fine dexterity and coordination of hand. In the test, memory and learning are important. Remembering the steps of the subtest immediately influences the scores, especially in the assembly subtest. Formal assessment of motor function is a common component of neuropsychological testing, and is sensitive to the presence of epilepsy independent of AED induced motor slowing. Although the Grooved Pegboard is the recommended CDE for older children and adults, the Purdue Pegboard is the recommended test for children 5 years of age and younger. This is due to an absence of adequate normative information in this age range for the Grooved Pegboard Test, and recognition that there is less of a fine motor component to the Purdue Pegboard Test since it does not require the subject to rotate slotted pegs to fit into a the pegboard (pegs for the Purdue Pegboard are round).</p> <p>Time to completion is obtained for both dominant and non-dominant hands. Normative data can be found in Baron (2004) and Strauss et al. (2006). Raw scores should also be reported. Unless there is a goal of lateral asymmetries, the dominant hand speed should be considered primary and the non-dominant hand speed should be considered secondary. Unlike the Grooved Pegboard, the Purdue Pegboard as an additional administration condition in which pegs are inserted using both hands simultaneously.</p> <p>Primary Dependent Measure: Dominant hand time to completion.</p> <p>Optional Secondary Measures: Non-dominant hand time to completion, Time to completion for both hands simultaneously.</p> <p>Optional Secondary Measure: Number of peg drops</p>
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References:	<p>Strauss E, Sherman EMS, Spreen O. (2006). A Compendium of neuropsychological tests: Administration, norms, and commentary. (3rd. ed.). New York: Oxford University Press. pp. 1042.</p> <p>Baron IS. (2004). <i>Neuropsychological evaluation of the child</i>. New York: Oxford University Press.</p> <p>Buddenberg LA, Davis C. Test-retest reliability of the Purdue Pegboard Test. <i>Am J Occup Ther</i> 2000;54:5:555–558.</p> <p>Golden CJ, Espe-Pfeifer P, Wachsler-Felder J (2000). <i>Neuropsychological Interpretations of Objective Psychological Tests</i>. New York: Springer. pp. 26.</p> <p>Reddon JR, Gill DM, Gauk SE, Maerz MD. Purdue Pegboard: test-retest estimates. <i>Percept Mot Skills</i>. 1988 Apr;66(2):503–506.</p>
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