

**NINDS CDE Notice of Copyright
Pediatric Outcomes Data Collection Instrument (PODCI)**

Availability:	Please visit this website for more information about the instrument: Pediatric Outcomes Data Collection Instrument .												
Classification:	Supplemental: Cerebral Palsy (CP) Exploratory: Duchenne Muscular Dystrophy (DMD)												
Short Description of Instrument:	<p>The Pediatric Outcomes Data Collection Instrument (PODCI) was created by the Pediatric Orthopedic Society of North America (POSNA), the American Academy of Orthopedic Surgeons (AAOS), American Academy of Pediatrics (AAP), and Shriner’s Hospitals to assess changes in pediatric musculoskeletal patients after orthopedic intervention. The PODCI measures potential changes in the overall health, pain and ability to participate in normal daily activity, as well as more vigorous activities associated with young people. The physical, mental, and psychological status of a child or adolescent patient are measured by the following scales: upper extremity and physical function; transfer and mobility tasks; sports/physical functioning; pain/comfort; treatment expectations, happiness, and satisfaction with symptoms (Klepper, 2011).</p> <p>The total PODCI measure consists of: Adolescent Outcomes Questionnaire (83 items)—Youth self-report—ages 11–18 years Adolescent Outcomes Questionnaire (86 items)—Parent/Guardian report—for youth 11–18 years Pediatric Outcomes Questionnaire (86 items)—Parent/Guardian report—for children ≤ 10 years</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #e0e0e0;"> <th style="text-align: left;">Subscales</th> <th style="text-align: right;">Number of Items</th> </tr> </thead> <tbody> <tr> <td>Upper extremity and physical function</td> <td style="text-align: right;">8</td> </tr> <tr> <td>Transfers and mobility</td> <td style="text-align: right;">11</td> </tr> <tr> <td>Sports and physical function</td> <td style="text-align: right;">21</td> </tr> <tr> <td>Pain/comfort</td> <td style="text-align: right;">3</td> </tr> <tr> <td>Happiness</td> <td style="text-align: right;">5</td> </tr> </tbody> </table> <p>Cerebral Palsy (CP)</p> <p>Construct measured: Upper Extremity Function, Transfers and Mobility, Physical Function and Sports Participation, Comfort/Pain/General Health, Happiness/Self-Worth, and Treatment Expectations</p> <p>Generic vs. disease specific: Generic. For children with CP, only validated in GMFCS levels I-III</p> <p>Means of administration: Questionnaire</p> <p>Intended respondent: Parent</p> <p>Background: The PODCI was developed as a parent/adolescent report specifically to assess changes following pediatric orthopedic interventions for a broad range of diagnoses, including children and adolescents with CP Gross Motor Function Classification System (GMFCS) levels I to III. The PODCI items focus on function and quality of life of the child, attributes that might change with surgical intervention.</p>	Subscales	Number of Items	Upper extremity and physical function	8	Transfers and mobility	11	Sports and physical function	21	Pain/comfort	3	Happiness	5
Subscales	Number of Items												
Upper extremity and physical function	8												
Transfers and mobility	11												
Sports and physical function	21												
Pain/comfort	3												
Happiness	5												

**NINDS CDE Notice of Copyright
Pediatric Outcomes Data Collection Instrument (PODCI)**

Comments / Special Instructions:	The questionnaire is intended for a parental or participant response in the original with the second version being a parental response. The focus is on on the child’s emotional and physical well-being, physical function, activities, social participation and pain experience in the past week.
Scoring:	<p>Scoring: Scoring varies greatly due to the multiple weighted scores of some items, scores range from 0–3 for some items and 0–6 for others. The overall score comes from 4 functional assessment scores, a global function score, and a happiness score. These scores range from 0–100 with lower scores representing higher levels of disability (Siebert, 2015).</p> <p>Overall scoring is derived from 4 functional assessment scores, a global function score, and a happiness score with each having a possible range from 0–100. Higher scores indicate higher levels of disability and lower scores indicate better functioning for most items.</p> <p>Adminstration Time: 15–20 minutes</p>
Rationale / Justification:	<p>Strengths/Weaknesses: The parent report covers a variety of domains. It includes questions about expectation of treatment, which is uncommon in other measures. It has been used in a variety of pediatric disorders. It is validated in children with CP, GMFCS levels I-III, ages 4 to 19 years. In ambulatory children with CP, a ceiling effect in all domains may limit ability to detect change in children of higher functional levels.</p> <p>Psychometric Properties: Ceiling effect impacts ability to detect change in children of higher physical function. Domains of mobility, upper extremity function, and comfort/general health tend to show change following surgical intervention, though effect size is small. Internal reliability in adult and adolescent reports were good to excellent (Daltroy et al., 1998). PODCI was found to discriminate on level of severity of physical function and presence of upper and/or lower limb impairments, and was sensitive to changes among children and adolescents who were classified as having severe or moderate physical impairment (Daltroy et al., 1998).</p>

**NINDS CDE Notice of Copyright
Pediatric Outcomes Data Collection Instrument (PODCI)**

References:	<p>Key Reference: Daltroy LH, Liang MH, Fossel AH, Goldberg MJ. The POSNA pediatric musculoskeletal functional health questionnaire: report on reliability, validity, and sensitivity to change. Pediatric Outcomes Instrument Development Group. J Pediatr Orthop. 1998;18(5):561–571.</p> <p>Additional References:</p> <p>Allen DD, Gorton GE, Oeffinger DJ, Tylkowski C, Tucker CA, Haley SM. Analysis of the pediatric outcomes data collection instrument in ambulatory children with cerebral palsy using confirmatory factor analysis and item response theory methods. J Pediatr Orthop. 2008;28(2):192–198.</p> <p>Klepper SE. Measures of pediatric function: Child Health Assessment Questionnaire (C-HAQ), Juvenile Arthritis Functional Assessment Scale (JAFAS), Pediatric Outcomes Data Collection Instrument (PODCI), and Activities Scale for Kids (ASK). Arthritis Care Res. 2011;63 Suppl 11:S371–S382.</p> <p>McDonald CM, McDonald DA, Bagley A, Sienko Thomas S, Buckon CE, Henricson E, Nicorici A, Sussman MD. Relationship between clinical outcome measures and parent proxy reports of health-related quality of life in ambulatory children with Duchenne muscular dystrophy. J Child Neurol. 2010;25(9):1130–1144.</p> <p>Siebert R. Tests & Measures Tools [Internet]: Elon University. 2015. [cited 14 July 2016]. Available from: http://blogs.elon.edu/ptkids/2015/03/17/pediatric-outcomes-data-collection-instrument/.</p> <p>Cerebral Palsy References:</p> <p>Amor CJ, Spaeth MC, Chafey DH, Gogola GR. Use of the Pediatric Outcomes Data Collection Instrument to evaluate functional outcomes in arthrogyrosis. J Pediatr Orthop. 2011;31(3):293–296.</p> <p>Barnes D, Linton JL, Sullivan E, Bagley A, Oeffinger D, Abel M, Damiano D, Gorton G, Nicholson D, Romness M, Rogers S, Tylkowski C. Pediatric outcomes data collection instrument scores in ambulatory children with cerebral palsy: an analysis by age groups and severity level. J Pediatr Orthop. 2008;28(1):97–102.</p> <p>Damiano DL, Gilgannon MD, Abel MF. Responsiveness and uniqueness of the pediatric outcomes data collection instrument compared to the gross motor function measure for measuring orthopaedic and neurosurgical outcomes in cerebral palsy. J Pediatr Orthop. 2005;25(5):641–645.</p>
--------------------	---