The Craig Handicap Assessment & Reporting Technique (CHART)

**Assessment Overview**

**Assessment Area**

**ICF Domain:** Participation  
**Subscales (dimensions):**  
- Physical Independence  
- Cognitive Independence  
- Mobility  
- Occupation  
- Social Integration  
- Economic Self-sufficiency

**Summary**

The CHART is a patient-reported outcome measure designed to measure the level of handicap in a community setting. CHART collects information on the degree to which the respondent fulfills the roles typically expected from people without disabilities. A short form (CHART-SF) has been developed, containing the same domains as the CHART.

**You Will Need**

**Length:**  
- CHART: 32 items, 30 minutes  
- CHART-SF: 19 items, 15 minutes

**Training:**  
None, but reading the manual is recommended

**Scoring:**  
Each dimension scored 0-100; 100 = role fulfillment equivalent to individuals without disabilities

**Availability**

- [http://tbims.org/combi/chart/CHART.pdf](http://tbims.org/combi/chart/CHART.pdf)

**Languages:** English, Spanish, Japanese, Chinese, Korean and Italian

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**Assessment Interpretability**

**Minimal Clinically Important Difference**

Not established in SCI

**Statistical Error**

**Standard Error of Measurement:**

40.7  
(Japanese version; Tozato et al. 2005; n=293, 246 males, mixed injury types, mean time since injury (SD) = 8.7 (6.6) years)

**Minimal Detectable Change**

53.3  
(De Wolf et al. 2010; n=58, 45 male, traumatic SCI, mixed injury types, data collected at 6 weeks and 1 year post-discharge from inpatient rehab)

**Typical Values**

**Mean (SD) Scores:**

- CHART Total = 378.7 (86.8)  
  (Tozato et al. 2005; n=293, 246 males, chronic SCI)
- CHART-SF Total = 332.6 (145.8)  
  (Gontkovsky et al. 2009; n=28, 21 males, mixed injury types, chronic SCI)

**Median (IQR) Scores:**

- Phys. Indep. = 93 (80-100)  
- Cog. Indep. = 100 (94-100)  
- Mobility = 81 (65-95)  
- Occupation = 79 (37-100)  
- Social Integration = 85 (70-100)  
- Econ. Self-suff. = 100 (50-100)  

(Whiteneck et al, CHART Guide; SCI individuals; no injury type, duration & sample size data available)
## Measurement Properties

### Validity – **Low to High**

**High** correlation with Sydney Psychosocial Reintegration Scale (SPRS):
Correlation = 0.72

**High** correlation between CHART-SF and Community Integration Questionnaire (CIQ):
Correlation = 0.79

**Moderate** correlation with Community Integration Measure (CIM):
Correlation = 0.47

**Low to Moderate** correlation with self-report FIM:
CHART total score: 0.26
CHART mobility subscale: 0.30
CHART physical subscale: 0.49

**Number of studies reporting validity data:** 9

### Reliability – **Low to High**

**High** Test-retest Reliability (CHART total score):
ICC = 0.93
(Whiteneck 1992; n=135, 113 males, mixed injury types, 2-35 years post-injury living in the community)

**Low to High** Participant-proxy agreement:
Total CHART: ICC=0.84
Physical Independence: ICC=0.69
Cognitive Independence: ICC=0.34
Mobility: ICC=0.86
Occupation: ICC=0.60
Social Integration: ICC=0.57
Economic Independence: ICC=0.59

(Cusick 2001; n=983 + their proxies, 560 males, SCI (n=224) and other disabilities, community living)

**Number of studies reporting reliability data:** 4

### Responsiveness

**Floor/Ceiling Effect:**
Ceiling effects occurred for the Social and Cognitive dimensions at both 6 weeks post-discharge from inpatient rehab (57-66% and 65-66%, respectively) and 1-year post-discharge (44-66% and 84-86%, respectively)

(De Wolf et al. 2010; n=58, 45 male, traumatic SCI, mixed injury types, data collected at 6 weeks and 1 year post-discharge from inpatient rehab)

**Effect Size:**
Not established in SCI

**Number of studies reporting responsiveness data:** 1