### Assessment Overview

#### Assessment Area

**ICF Domain:** Participation  
**Subscales of PARA-SCI:**  
Cumulative Activity  
Leisure Time Physical Activity (LTPA)  
Lifestyle Activity

#### Summary

The Physical Activity Recall Assessment for People with SCI (PARA-SCI) is designed to capture information on the type, frequency, duration and intensity of physical activity carried out by SCI individuals using a wheelchair as their primary mode of mobility.

This assessment was specifically developed for the SCI population. It provides a quantitative measure of physical activity, taking into account ADLs – which are often physically taxing for individuals with SCI.

#### You Will Need

**Length:**  
20-30 minutes, 8 categories  
**Scoring:**  
Activity scores: average # of minutes of mild, moderate, and heavy activity reported for categories across three days. Daily cumulative physical activity: average sum of LTPA and leisure activity across three days. Separate scores are calculated for mild, moderate, and heavy intensity levels.

#### Availability

Available for purchase at:  

Note: A demonstration version can be downloaded for free.

### Assessment Interpretability

#### Minimal Clinically Important Difference

**MCD = 179.4min**

(Zbogar et al. 2016, N=106; Non-ambulatory patients: (n=70), 49M, 21F, Mean age (SD): 48.9 (18.3), 49% Paraplegic, 51% Tetraplegic; Ambulatory patients: (n=36), 26M, 9F, Mean age (SD): 51.8 (15.4), 63% Paraplegic, 37% Tetraplegic)

#### Statistical Error

**Standard Error of Measurement:**

- **Cumulative:** 64.7 min/day
- **LTPA:** 31.7 min/day
- **Lifestyle activity:** 65.0 min/day

**Minimal Detectable Change:**

- **Cumulative:** 179.4 min/day
- **LTPA:** 87.9 min/day
- **Lifestyle activity:** 180.1 min/day

(Martin Ginis et al., 2005; N=102, 72% male, mixed injury types, mean (SD) time since injury = 12.5 (11.2) years for paraplegics (n=50), 11.2 (8.5) years for tetraplegics (n=52))

#### Typical Values

**Mean Scores (min/day):**

- **Cumulative:** 184.1-189.3
- **LTPA:** 45.3-51.2
- **Lifestyle activity:** 138.1-138.8

(Martin Ginis et al., 2005; N=102, 72% male, mixed injury types, mean (SD) time since injury = 12.5 (11.2) years for paraplegics (n=50), 11.2 (8.5) years for tetraplegics (n=52))
Measurement Properties

Validity – **Low** to **Moderate**

**Moderate** correlation between Leisure Time Physical Activity Questionnaire for People with Spinal Cord Injury and PARA-SCI LTPA subscale:

\[ r = 0.46 \]

(Martin Ginis et al., 2012; N=103, 75% male, mixed injury types, general community, mean (SD) time since injury = 17.9 (11.9) years)

**Moderate** correlation with Step Counts:

\[ r (95\% CI) = 0.35 (0.01-0.61) \]

**Low** correlation with Wrist accelerometry:

\[ r (95\% CI) = -0.04 (-0.27-0.20) \]

**Low** correlation with SCIM III mobility score:

\[ r (95\% CI) = -0.14 (-0.37-0.11) \]

(Zbogar et al. 2016, N=106; Non-ambulatory patients: (n=70), 49M, 21F, Mean age (SD): 48.9 (18.3), 49% Paraplegic, 51% Tetraplegic; Ambulatory patients: (n=36), 26M, 9F, Mean age (SD): 51.8 (15.4), 63% Paraplegic, 37% Tetraplegic)

Number of studies reporting validity data: 4

Reliability – **Moderate** to **High**

**Moderate** to **High** Test-retest Reliability:

Cumulative: ICC = 0.79

LTPA: ICC = 0.72

Lifestyle Activity: ICC = 0.78

(Martin Ginis et al., 2005; N=102, 72% male, mixed injury types, mean (SD) time since injury = 12.5 (11.2) years for paraplegics (n=50), 11.2 (8.5) years for tetraplegics (n=52))

**Moderate** Test-retest Reliability:

Non-ambulatory participants:

\[ \rho (95\% CI) = 0.68 (0.53-0.79) \]

Ambulatory participants:

\[ \rho (95\% CI) = 0.53 (0.24-0.73) \]

(Zbogar et al. 2016, N=106; Non-ambulatory patients: (n=70), 49M, 21F, Mean age (SD): 48.9 (18.3), 49% Paraplegic, 51% Tetraplegic; Ambulatory patients: (n=36), 26M, 9F, Mean age (SD): 51.8 (15.4), 63% Paraplegic, 37% Tetraplegic)

Number of studies reporting reliability data: 2

Responsiveness

**Floor/Ceiling Effect:**

Floor Effect: 63%-64% reported no heavy intensity lifestyle activities

(Martin Ginis et al., 2005; N=102, 72% male, mixed injury types, mean (SD) time since injury = 12.5 (11.2) years for paraplegics (n=50), 11.2 (8.5) years for tetraplegics (n=52))

**Effect Size:**

Not established in SCI

Number of studies reporting responsiveness data: 1