

# Wheelchair User's Shoulder Pain Index (WUSPI)

## Assessment Overview

### Assessment Area

**ICF Domain:**

Body Function

**Subcategory:**

Sensory Functions

### You Will Need

**Length:**

15 items, approx. 5 min

**Scoring:**

Each item scored 0-10 on a 10 cm visual analog scale (VAS).

Total score (0-150) is the sum of all item scores.

Higher scores indicate greater interference due to shoulder pain.

### Summary

The Wheelchair User's Shoulder Pain Index (WUSPI) is a simple and effective self-report questionnaire for quickly measuring the functional cost of shoulder pain in wheelchair users.

The WUSPI targets activity limitation resulting from shoulder pain (4 subsections), including wheelchair transfers, wheelchair mobility, self-care and general activities. However, it does not obtain information about the type or frequency of pain experienced during the activities. No strategies are suggested to assist with scoring if a person indicates they do not do certain activities (e.g./ load their chair into a car).

No psychometric evidence is available for responsiveness and the majority of research for reliability and validity has been conducted using a mixed sample (not just SCI).

### Availability

Available for free directly from the author of the Scale, Dr. Kathleen Curtis, [kacurtis@utep.edu](mailto:kacurtis@utep.edu); <http://chs.utep.edu> or by phone at 915-747-7201.

**Languages:** English

## Assessment Interpretability

### Minimal Clinically Important Difference

Not established in SCI

### Statistical Error

**Standard Error of Measurement:**

1.84

**Minimal Detectable Change:**

5.10

(calculated from Curtis et al, 1995b; n = 16; mean age = 38.1 (12.2) years; mean time of wheelchair use = 15.0 (10.0) years; 11 subjects with SCI, 5 subjects with other disorders)

### Typical Values

Not established in SCI

## Measurement Properties

### Validity – **Low to High**

**Low correlation with Klein-Bell ADL Scale:**

$r = 0.10$

(Samuelsson et al., 2004; N=56, 44 male; paraplegia; >1 year post-SCI)

**High Convergent Validity with Numerical Rating Scale 101 (for Pain):**

$r = 0.723$

(Salisbury et al. 2006; N=27, 20 male, tetraplegia, 2-4 years post-SCI)

**Number of studies reporting validity data: 3**

### Reliability – **High**

**High Test-retest Reliability:**

ICC = 0.99

(Curtis et al., 1995b; N=16, 15 male, mixed diagnoses with 69% SCI)

**High Internal Consistency:**

$\alpha = 0.97$

(Curtis et al., 1995a; N=64, 62 male, mixed diagnoses with 69% SCI)

**Number of studies reporting reliability data: 2**

## Responsiveness

**Floor/Ceiling Effect:**

Not established in SCI

**Effect Size:**

Not established in SCI

**Number of studies reporting**

**responsiveness data: 0**