

# Spinal Cord Injury Secondary Conditions Scale (SCI-SCS)

## Assessment Overview

### Assessment Area

**ICF Domain:**

Body Function

**Subcategory:**

General Functions

### You Will Need

**Length:**

16 items

**Scoring:**

Items rated 0-3. Total score (0-48) is sum of items. Higher scores indicate greater problems with secondary conditions

### Summary

The Spinal Cord Injury Secondary Conditions Scale (SCI-SCS) is a self-report questionnaire specifically targeting physiological secondary conditions associated with SCI that directly and indirectly impact health and physical functioning. The SCI-SCS covers skin, musculoskeletal, pain, bowel/bladder, sexual dysfunction, respiratory, and cardiovascular conditions.

### Availability

Available for free here: [http://www.scireproject.com/wp-content/uploads/worksheet\\_sci-scs.docx](http://www.scireproject.com/wp-content/uploads/worksheet_sci-scs.docx)

**Languages:** English

## Assessment Interpretability

### Minimal Clinically Important Difference

Not established in SCI

### Statistical Error

Not established in SCI

### Typical Values

Proportion of sample reporting degree of problems with secondary conditions available in research summary.

(Kalpakjian et al., 2007; N=65, 46 male, mixed injury types, Mean (SD) years since injury = 13.7 (11.0) years)

## Measurement Properties

### Validity – **Low** to **High**

#### **Moderate** to **High** correlation with Short Form 12 (SF-12) Subscales:

$\rho = 0.317-0.644$

(Kalpakjian et al., 2007; N=65, 46 male, mixed injury types, Mean (SD) years since injury = 13.7 (11.0) years)

#### **Low** correlation with Modified Barthel Index (MBI)

$r = 0.20$

#### **Moderate** correlation with SF-8 Physical component (PCS)

$r = 0.36$

#### **Low** correlation with SF-8 Mental component summary (MCS)

$r = 0.21$

#### **Moderate** correlation with Patient Health Questionnaire (PHQ-9)

$r = 0.43$

#### **Low** correlation with General anxiety disorder 7 (GAD-7)

$r = 0.30$

#### **Low** correlation with Tetraplegia

$r = 0.29$

(Conti et al., 2019; N= 156, 126M, mixed injury types)

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

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

#### **High** Test-retest Reliability:

ICC = 0.91

(Conti et al., 2019; N= 156, 126M, mixed injury types)

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

Correlation = 0.569-0.805

(Intervals at 5 time points between baseline and 2-year follow-up; Kalpakjian et al., 2007; N=65, 46 male, mixed injury types, Mean (SD) years since injury = 13.7 (11.0) years)

ICC = 0.96

(4-6 day interval; Arora et al., 2015; N=40, 32 male, mixed injury types, median (IQR) time since injury: 28 (14-35) years)

#### **Moderate** Internal Consistency:

$\alpha = 0.73$

(Conti et al., 2019; N= 156, 126M, mixed injury types)

#### **Moderate** to **High** Internal Consistency:

$\alpha = 0.761-0.869$

(Kalpakjian et al., 2007; N=65, 46 male, mixed injury types, Mean (SD) years since injury = 13.7 (11.0) years)

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

## Responsiveness

#### Floor/Ceiling Effect:

Floor: Apparent in all 16 items  
(29.2%~89.2% at floor)

Ceiling: Apparent in 3 items:

Sexual Function (26.2%)

Chronic Pain (32.3%)

Joint & Muscle Pain (29.2%)

(Kalpakjian et al., 2007; N=65, 46 male, mixed injury types, Mean (SD) years since injury = 13.7 (11.0) years)

Floor: Apparent in 2 items:

- Skin, breathing &

#### Effect Size:

Not established in SCI

#### Number of studies reporting

responsiveness data: 1

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metabolism (27%)

- Circulatory and autonomic (25%)

(Conti et al., 2019; N= 156, 126M, mixed injury types)