

Spinal Cord Injury Bladder and Bowel Control Questionnaire (SCI-BBC-Q)

Assessment Overview

Assessment Area

ICF Domain:

Body Functions

Subcategory:

Digestive, Metabolic and Endocrine

You Will Need

Length:

6 items, 5-6 minutes approximately:

- 3 lower urinary tract questions.
- 3 lower gastrointestinal questions.

Administration:

Designed to be interview, but easily adaptable to be self-administered.

Scoring:

Questions are answered with “yes” (score = 2), “yes, but...” (score = 1), “no” (score = 0), or “cannot be determined” (not scored).

Higher scores (12) on the SCI-BBC-Q indicate normal lower urinary tract and lower gastrointestinal function.

Summary

The Spinal Cord Injury Bladder and Bowel Control Questionnaire (SCI-BBC-Q) aims to measure the individual sensory and motor components of the lower gastrointestinal tract and lower urinary tract function following SCI.

It aims to provide a simple, brief, logical, and clinically relevant questionnaire to assess baseline lower urinary tract and lower gastrointestinal tract function, along with changes during inpatient rehabilitation in newly injured patients with SCI.

It has been developed using the lower urinary tract and lower gastrointestinal tract questions from the International Standards to document Autonomic Function following SCI (ISAFSCI) as a starting point.

The population for intended use of the measure was people with SCI, although it could be used to assess neurogenic lower urinary tract and lower gastrointestinal dysfunction following other aetiologies.

Availability

Worksheet: Can be found in the following article:

<https://pubmed.ncbi.nlm.nih.gov/39315719/>

Languages: English

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Not established in SCI

Typical Values

Not established in SCI

Measurement Properties

Validity – **Low to Moderate**

Moderate correlation between the SCI-BBC-Q and AIS:
 $r = 0.41$

Moderate correlation between changes in SCI-BBC-Q and change in SCIM-III bladder management scores from admission to discharge:
 $r_s = 0.40, p = 0.048$

Low correlation between baseline SCI-BBC-Q and the baseline ISNCSCI S4-5 sensory scores:
 $r_s = 0.36, p = 0.01$

Low correlation between SCI-BBC-Q score changes and the ISNCSCI S4-5 sensory score changes between admission and discharge:
 $r_s = 0.39, p = 0.02$

(Bryce et al. 2025; N=51, 35 males, 16 females; mean (SD) age: 49 (19) years; 32 cervical SCI, 13 thoracic SCI, 4 lumbar/sacral SCI; 5 ASIA A, 8 ASIA B, 17 ASIA C, 18 ASIA D; mean time since injury = 2 months)

Number of studies reporting validity data: 1

Reliability – **High**

High Internal Consistency:
Total $\alpha = 0.73$

High Test-retest reliability:
Total ICC = 0.95

(Bryce et al. 2025; N=51, 35 males, 16 females; mean (SD) age: 49 (19) years; 32 cervical SCI, 13 thoracic SCI, 4 lumbar/sacral SCI; 5 ASIA A, 8 ASIA B, 17 ASIA C, 18 ASIA D; mean time since injury = 2 months)

Number of studies reporting reliability data: 1

Responsiveness

Floor/Ceiling Effect:

Not established in SCI

Effect Size:

Not established in SCI

Number of studies reporting responsiveness data: 0