

# Braden Scale

## Assessment Overview

### Assessment Area

**ICF Domain:**

Body Function

**Subcategory:**

Functions of the Skin

**Subscales (domains):**

1) Sensory Perception, 2) Moisture, 3) Activity, 4) Mobility, 5) Nutrition, 6) Friction and Shear

### You Will Need

**Length:**

5-10 minutes, 6 items

**Scoring:**

Each domain scored 1-4 (except for Friction and Shear, which is scored 1-3), total score (6-23) as sum of domains.

Higher scores reflect better prognosis.

### Summary

The Braden Scale is a clinician-administered assessment tool for determining a patient's risk level for incurring skin breakdown. It has been tested in both acute care and long-term-care settings. Though the reliability of the scale has been demonstrated in a variety of settings, it has not specifically been tested with individuals with SCI. The scale items were developed based on expert consensus, and exclude items previously found to be important predictors of pressure ulcer development for people with SCI and includes three factors (sensory perception, mobility and nutritional variables) that were not significantly related to pressure ulcer development for individuals with SCI.

### Availability

Available at: [www.bradenscale.com](http://www.bradenscale.com)

An assessment form can be found here:

[http://www.in.gov/isdh/files/Braden\\_Scale.pdf](http://www.in.gov/isdh/files/Braden_Scale.pdf)

**Languages:** English, French, Portuguese / Brazilian Portuguese, Spanish. Also available in other languages, but are not formally validated.

Video: <https://www.scireproject.com/outcome-measures/video>

## Assessment Interpretability

### Minimal Clinically Important Difference

Not established in SCI

### Statistical Error

Not established in SCI

### Typical Values

**Mean (95%CI) Scores:**

All patients: 11.1 (10.7-11.5)

Patients with ulcers at any stage (n=80): 9.9 (9.6-10.3)

Patients with no ulcers at any stage (n=64): 12.6 (12-13.2)

(Ash 2002; n=144; mixed injury types; mean time since injury = 14 days)

**Mean (SD) Scores:**

13.8 (1.75) (range 10-18)

(Wellard, 2002; N=60; mixed injury types; non-acute SCI patients)

**Threshold Values:**

16 or less indicates risk of pressure ulcer

(Bergstrom et al 1987; N=199, 101 male; inpatients of varied conditions initially without skin breakdown; sensitivity=100%, specificity=90-64%)

## Measurement Properties

### Validity – **Moderate**

**Moderate** correlation with the stage of the first pressure ulcer:

Correlation = -0.353

**Moderate** correlation with the number of ulcers developed:

Correlation = -0.431

(Salzberg et al. 1999; n=226, 188 males; mixed injury types; acute, traumatic SCI)

**Moderate** predictive validity:

Area Under Curve (AUC) = 81

CI (95%) = 74-88

(Ash 2002; n=144; mixed injury types; mean time since injury = 14 days)

It was found that sensory perception, mobility and nutritional variables were not significantly related to pressure ulcer development. Moisture was the most important predictive variable

(Salzberg et al., 1999; N=226, 188 male; acute traumatic SCI, mixed injury types)

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

### Reliability

Not established in SCI

## Responsiveness

### Floor/Ceiling Effect:

A ceiling effect was reported in mixed populations (21% of patients attained a 'high risk' score)

(Wellard, 2002; N=60; mixed injury types; non-acute SCI patients)

### Effect Size:

Not established in SCI

### Number of studies reporting

**responsiveness data: 0**