

Walking Index for Spinal Cord Injury I

Adapted from Ditunno Jr JF et al. Walking index for spinal cord injury (WISCI): an international multicenter validity and reliability study, *Spinal Cord*, 38: 234-243, 2000; Appendix A & B. Used with permission from Nature Publishing.

Physical limitation for walking secondary to impairment is defined at the person level and indicates the ability of a person to walk after spinal cord injury. The development of this assessment index required a rank ordering along a dimension of impairment, from the level of most severe impairment (1) to least severe impairment (19) based on the use of devices, braces and physical assistance of one or more persons. The order of the levels suggests each successive level is a less impaired level than the former. The ranking of severity is based on the severity of the impairment and not on functional independence in the environment. The following definitions standardize the terms used in each item:

Physical assistance:

'Physical assistance of two persons' is moderate to maximum assistance

'Physical assistance of one person' is minimal assistance.

Braces:

'Braces' means one or two braces, either short or long leg.

'No braces' means no braces on either leg.

Walker:

'Walker' is a conventional rigid walker without wheels.

Crutches:

'Crutches' can be Lofstrand (canadian) or axillary

Cane:

'Cane' is a conventional straight cane.

Level Description

1 = Ambulates in parallel bars, with braces and physical assistance of two persons, less than 10 meters.

2 = Ambulates in parallel bars, with braces and physical assistance of two persons, 10 meters.

3 = Ambulates in parallel bars, with braces and physical assistance of one person, 10 meters.

4 = Ambulates in parallel bars, no braces and physical assistance of one person, 10 meters.

5 = Ambulates in parallel bars, with braces and no physical assistance, 10 meters.

6 = Ambulates with walker, with braces and physical assistance of one person, 10 meters.

7 = Ambulates with two crutches, with braces and physical assistance of one person, 10 meters.

8 = Ambulates with walker, no braces and physical assistance of one person, 10

meters.

9 = Ambulates with walker, with braces and no physical assistance, 10 meters.

10 = Ambulates with one cane/crutch, with braces and physical assistance of one person, 10 meters.

11 = Ambulates with two crutches, no braces and physical assistance of one person, 10 meters.

12 = Ambulates with two crutches, with braces and no physical assistance, 10 meters.

13 = Ambulates with walker, no braces and no physical assistance, 10 meters.

14 = Ambulates with one cane/crutch, no braces and physical assistance of one person, 10 meters.

15 = Ambulates with one cane/crutch, with braces and no physical assistance, 10 meters.

16 = Ambulates with two crutches, no braces and no physical assistance, 10 meters.

17 = Ambulates with no devices, no braces and physical assistance of one person, 10 meters.

18 = Ambulates with one cane/crutch, no braces and no physical assistance, 10 meters.

19 = Ambulates with no devices, no braces and no physical assistance, 10 meters

WISCI Levels:

Level	Devices	Braces	Assistance	Distance
1	Parallel bars	Braces	2 persons	Less than 10 meters
2	Parallel bars	Braces	2 persons	10 meters
3	Parallel bars	Braces	1 person	10 meters
4	Parallel bars	No braces	1 person	10 meters
5	Parallel bars	Braces	No assistance	10 meters
6	Walker	Braces	1 person	10 meters
7	Two crutches	Braces	1 person	10 meters
8	Walker	No braces	1 person	10 meters
9	Walker	Braces	No assistance	10 meters
10	One cane/ crutch	Braces	1 person	10 meters
11	Two crutches	No braces	1 person	10 meters
12	Two crutches	Braces	No assistance	10 meters
13	Walker	No braces	No assistance	10 meters
14	One cane/ crutch	No braces	1 person	10 meters
15	One cane/ crutch	Braces	No assistance	10 meters
16	Two crutches	No braces	No assistance	10 meters
17	No devices	No braces	1 person	10 meters
18	One cane/ crutch	No braces	No assistance	10 meters

	crutch			
19	No devices	No braces	No assistance	10 meters

Walking Index for Spinal Cord Injury Worksheet:

Patient name: _____

Date: _____

Check descriptors which apply to current walking performance, then assign the highest level of walking performance.

In scoring a level, one should choose the level at which the patient is safe as judged by the therapist, with patient's comfort level described. If devices other than stated in the standard definitions are used, they should be documented as descriptors. If there is a discrepancy between two observers, the higher level should be chosen.

Descriptors

Devices	Braces	Assistance	Patient reported comfort level
Parallel bars < 10 ft	Long Leg Braces Uses 2 Uses 1	Max assistance x 2 people	Very comfortable
Parallel bars 10 ft	Short Leg Braces Uses 2 Uses 1	Min/mod assistance x 2 people	Slightly comfortable
Walker – Standard rolling platform		Min/mod assistance x 1 person	Neither comfortable or uncomfortable
Crutches – Uses 2 Uses 1			Slightly uncomfortable
Canes – Quad Uses 2 Uses 1			Very uncomfortable
No devices	No braces	No assistance	

WISCI Levels:

Level	Devices	Braces	Assistance	Distance
1	Parallel bars	Braces	2 persons	Less than 10 meters
2	Parallel bars	Braces	2 persons	10 meters
3	Parallel bars	Braces	1 person	10 meters
4	Parallel bars	No braces	1 person	10 meters
5	Parallel bars	Braces	No assistance	10 meters
6	Walker	Braces	1 person	10 meters
7	Two crutches	Braces	1 person	10 meters
8	Walker	No braces	1 person	10 meters
9	Walker	Braces	No assistance	10 meters
10	One cane/ crutch	Braces	1 person	10 meters
11	Two crutches	No braces	1 person	10 meters

12	Two crutches	Braces	No assistance	10 meters
13	Walker	No braces	No assistance	10 meters
14	One cane/ crutch	No braces	1 person	10 meters
15	One cane/ crutch	Braces	No assistance	10 meters
16	Two crutches	No braces	No assistance	10 meters
17	No devices	No braces	1 person	10 meters
18	One cane/ crutch	No braces	No assistance	10 meters
19	No devices	No braces	No assistance	10 meters

WISCI Level assigned: _____