



## The Berg Balance Scale

### Summary

The Berg Balance Scale was developed in 1989 to measure balance in the elderly.<sup>1</sup> The scale consists of 14 items, scored from 0 to 4, which are added to make a total score between 0 and 56; a higher score indicates better balance. The items vary in difficulty – from sitting in a chair to standing on one leg. The Berg Balance Scale takes approximately 10 to 15 minutes to complete. It requires a chair, a stopwatch, a ruler and a step. Although the Berg Balance Scale was originally developed to measure balance in the elderly, it is now commonly used to measure balance in people with varying conditions and disabilities.

**Reliability and validity:** The Berg Balance Scale has a high relative reliability with inter-rater reliability estimated at 0.97 (95% CI 0.96 to 0.98) and intra-rater reliability estimated at 0.98 (95% CI 0.97 to 0.99). The absolute reliability of the Berg Balance Scale varies across the scale, with minimal detectable change with 95% confidence varying between 2.8/56 and 6.6/56. The absolute reliability is stronger at the high end and weaker towards the middle of the scale. Limited data from subjects with scores of less

than 20 suggest that the tool might have similar absolute reliability at the low and high ends.<sup>2</sup> A clinician would therefore need to see a change of three points or more at the very high and very low ends of the scale to be confident that there was a real change, but would need to find a change of at least seven points in the middle scores. Higher scores on the Berg Balance Scale have been found to be strongly related to a higher probability of discharge from hospital to home, rather than to nursing home.<sup>3</sup> Lower Berg Balance Scale scores in older people have been found to predict the onset of inability to perform important activities of daily living.<sup>4</sup> Most,<sup>5–11</sup> though not all,<sup>12,13</sup> prospective studies investigating the relationship between the Berg Balance Scale and falls support its validity for predicting falls.

**Normal values:** People aged 69 years without any health conditions likely to affect mobility can be expected to have a Berg Balance Scale score of 56/56. This normal value declines with increasing age, at a rate of 0.75 points per year. Thus, a person aged 75 would be expected to have a Berg Balance Scale score of 51.<sup>14</sup>

### Commentary

The Berg Balance Scale is a reliable, valid and widely-used tool that can be administered easily with minimal equipment in 10 to 15 minutes. It can be used in people with varying conditions and disabilities. Unlike other tests of balance and mobility, which require people to be able to walk or stand independently, the Berg Balance Scale can be used for people who are unable to move from a chair.

**Limitations:** The Berg Balance Scale has a ceiling effect when used in people younger than 75 who do not have a specific health condition likely to affect balance even if they have an increased risk of falling. Therefore, it may not be a good screening tool for these individuals. In addition, the Berg Balance Scale measures neither the quality of gait nor the speed of walking and, therefore, may be less useful than other tools where motor control is a bigger contributor to poor balance than muscle weakness.

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### References

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