

Relative and Absolute Reliability of Hand Behind Back Test for Dominant and Non Dominant Hand in Healthy Adults: A Study Protocol

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Introduction: Hand-behind-back (HBB) motion constitutes a fundamental functional movement involved in numerous activities of daily living, including reaching for posterior pockets, dressing, undoing the bra clasp, and back scratching. The shoulder HBB Range of Motion (ROM) is one of the very useful clinical parameters for the measurement of pain and functional disability in patients with pathology of the shoulder. This motion represents a complex pattern of movement by the shoulder with internal rotation, adduction, and extension. HBB ROM measurement provides a standardised and objective method of measuring shoulder internal rotation, which is essential for accurate diagnosis, development of individualised rehabilitation strategies, and objective monitoring of patient progress.

Need of this study: This study is intended to find out the relative and absolute reliability of HBB test for dominant and non dominant hand in healthy adults.

Materials and Methods: A cross-sectional study will be conducted in MMDU, Mullana. A sample of healthy adults will be recruited for the age group of 18-25 Years. The HBB will be measured for each participant. During this test, patients will be asked to reach behind their backs and slide their hands upward along the spine, with the highest vertebral level reached by the thumb. Then the distance will be measured using tape measure from the highest vertebral level attained with the thumb and posterior superior iliac spine.

Keywords: Internal rotation, Measurement, Range of motion, Reference values