

## COMPARISON OF HIP RANGE OF MOTION (ROM) IN INDIVIDUALS WITH AND WITHOUT LOW BACK PAIN (LBP) IN NATIONAL HOSPITAL OF SRI LANKA (NHSL)

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LBP is a leading cause of disability among people worldwide. Due to the close anatomical proximity of the hip joint with the lumbopelvic region, it is believed that the hip joint function is related to low back pain. Comparing hip ROM in individuals with and without LBP, with gender and age in Non-LBP individuals were study objectives. Observational case control study was carried out between two groups of 50 LBP and 50 Non-LBP individuals in NHSL. Socio-demographic characteristics were gathered using an interviewer-administered questionnaire and hip active ROM in all 3 anatomical planes was measured by the universal goniometer in both groups. BMI was taken by measuring Height and Weight. A significant difference was found between the two groups in all hip ROM ( $p=0.000$ ). Mean hip ROM in each plane was higher in non-LBP individuals. Means of hip ROM values were

higher in the group aged between 25-32 years than the 32-60 years aged group. There was a significant association and correlation between hip flexion, extension, abduction and adduction with age ( $P$  value  $< 0.05$ ). Mean of hip ROM in females are higher than males except in hip abduction and extension. There was a significant difference between means of hip flexion, hip abduction, hip internal rotation and external rotation with gender ( $p<0.05$ ). In LBP group, every hip ROM value was decreased. Age and gender had an association with the hip ROM in Non-LBP individuals. Further studies should be carried out to see the relevance of this study to whole Sri Lankan population.

**Keywords:** Low Back Pain, Hip Range of Motion, Age, Gender