## Differences in BMI, Physical Activity Level and Diet of Healthy People and People with Lower Back Pain

KMCP Rathnayake<sup>1</sup>, SNMWL Semasinghe<sup>1</sup>, KAMC Rathnapala<sup>1</sup>, C Nanayakkara<sup>2</sup>#and S Sukirthan<sup>1</sup>

<sup>1</sup>Departmanet of Physiotherapy, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, 10290, Sri Lanka <sup>2</sup>Faculty of Medicine, General Sir John Kotelawala Defence University, 10390, Sri Lanka #drcharithnanayakkara@gmail.com

Lower back pain (LBP) is a major cause of disability worldwide, affecting general wellbeing and performance at work. Several factors are believed to be associated with the incidence of lower back pain. The main objective of this study was to investigate the differences in Body Mass Index (BMI), physical activity level, and diet in people with LBP and healthy people. An analytical observational study was carried out including 50 LBP patients (Cases) and 50 patients without LBP (Controls) from the Department of Neurology and Neurosurgery, University Hospital. Kotelawala Defence University. Demographic data was collected on an assessment form. Measurements and calculations regarding BMI were done according to standard methods. To evaluate activity level, the International Physical Activity Questionnaire was used. Dietary intake was assessed by using a questionnaire made by the members of the research group. All the information on the questionnaires was gathered using an interviewer-administered method. There was a significant difference in BMI between the two groups (P< 0.05). There was a significant difference in the weight of the two groups (P< 0.05). Most people with LBP have high IPAQ scores, while healthy people have moderate IPAQ scores (P< 0.05). There was a significant difference in animal protein intake (P< 0.05), sugar intake (P<0.05) and overall quantity of food consumption (P<0.05) between the two groups, where all of the above factors were high in the LBP group. Therefore, it is recommended to consider the above factors when assessing and treating patients with LBP.

**Keywords:** BMI, physical activity level, lower back pain, animal proteins, sugar, quantities of food