

# Comparison Effect of Dynapenia on Lower Extremity Function in Normal and Obese Individual Aged 50 to 70 Years: An Age Matched Cross Sectional Study

Dr. Shilpa V. Chourasia

VSPM's College of Physiotherapy, Digdoh Hills, Hingna, Nagpur

## ABSTRACT

**Introduction:** Dynapenia is an important prognostic indicator of functional impairment in elderly. Reduced muscle in elderly is a major cause for their increased prevalence of disability. Lower extremity muscle strength and muscle quality are strong determinants of walking performance and powerful predictor of risk of mobility limitation.

**Aim:** To compare the effect of Dynapenia on lower extremity function in normal and obese individual aged 50 to 70 years.

**Methods:** An age matched cross sectional study was carried out with 192 individuals of age 50 to 70 years to find out the effect of Dynapenia and obesity on lower extremity function. Lower extremity functions were assessed using walking speed for 20 meters pathway in meter per seconds (m/s) and time required in seconds to complete 5 repetitions sit to stand test.

**Result:** The Dynapenic obese group have shown slowest walking speed and required more time to complete 5 repetitions sit to stand test as compared to Dynapenic alone, obese alone and non-Dynapenic/ non-obese group. In addition, gait speed was nearly similar between Dynapenic alone and obese alone group which indicates that Dynapenia has similar negative impact as obesity.

**Conclusion:** The study concluded that Dynapenia in obesity independently has an effect on lower extremity function in both males and females. Combination of Dynapenia and obesity i.e., Dynapenic obesity is hazardous and can result in impaired physical functions and hamper activities of daily living in elderly aged 50 to 70 years.

**Keywords:** Dynapenia, Obesity, BMI

