

Title: Correlation between Body Composition and Walking Capacity in Severe Obesity

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Obesity is associated with mobility reduction due to mechanical factors and excessive body fat. The six-minute walk test (6MWT) has been used to assess functional capacity in severe obesity. Objective: To determine the association of BMI, total and segmental body composition with distance walked (6MWD) during the six-minute walk test (6MWT) according to gender and obesity grade. Setting: University of São Paulo Medical School, Brazil; Public Practice. Methods: Functional capacity was assessed by 6MWD and body composition (%) by bioelectrical impedance analysis in 90 patients. Results: The mean 6MWD was  $514.9 \pm 50.3$  m for both genders. The male group (M:  $545.2 \pm 46.9$  m) showed a 6MWD higher (p = 0.002) than the female group (F:  $505.6 \pm 1000$ ) 47.9 m). The morbid obese group (MO:  $524.7 \pm 44.0$  m) also showed a 6MWD higher (p = 0.014) than the super obese group (SO:  $494.2 \pm 57.0$  m). There was a positive relationship between 6MWD and fat free mass (FFM), FFM of upper limps (FFM\_UL), trunk (FFM\_TR) and lower limbs (FFM\_LL). Female group presented a positive relationship between 6MWD and FFM, FFM\_UL and FFM LL and male group presented a positive relationship between 6MWD and FFM TR. In morbid obese group there was a positive relationship between 6MWD with FFM, FFM\_UL, FFM TR and FFM\_LL. The super obese group presented a positive relationship between 6MWD with FFM, FFM\_TR and FFM\_LL. Conclusions: Total and segmental FFM is associated with a better walking capacity than BMI.

## **Biography**

Gabriela Correia de Faria Santarém completed his master's degree at the age of 33 years in the University of São Paulo Medical School and is a PhD student at the same University. She has published more articles related to obesity in renowned journals.

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