

## Relationship between Body Composition and Balance in Young Adults

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**Abstract :** Overweight and obesity has been associated with postural balance. The aim of this study was to investigate the relationship between body composition and balance. One hundred and thirty two young adults (58 male, 74 female) were included in the study. Mean age of participants were found as  $21.21 \pm 1.51$  years. Body composition (body mass index, total body fat ratio, total body muscle ratio) and balance (right anterior, right postero-medial, right postero-lateral, left anterior, left postero-medial, left postero-lateral) were evaluated by Tanita BC-418 and Y balance test, respectively. Pearson correlation analysis was used to evaluate the correlation between the parameters. Significance level in statistical analysis was accepted as 0.05. According to results, no correlation was found between body mass index and balance parameters. There was negative correlation between total body fat ratio and balance parameters ( $r=0.419-0.509$ ,  $p<0.05$ ). On the other hand, positive correlation was found between total body muscle ratio and balance parameters ( $r=0.390-0.494$ ,  $p<0.05$ ). This study demonstrated that body fat and muscle ratio affects the balance. Body composition should be considered in rehabilitation programs including postural balance training.

**Keywords :** balance, body composition, body mass, young adults

**Conference Title :** ICP 2017 : International Conference on Physiotherapy

**Conference Location :** London, United Kingdom

**Conference Dates :** January 19-20, 2017