

Cadets' Body Contents Analysis Before and After Basic Training at the Polish Military University

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Abstract:

Introduction: An essential component of soldiers' readiness to perform tasks is their physical fitness, which is dependent on body mass and body composition, in turn determining the proper functioning of the organism. Body composition changes as a result of environmental conditions, professional factors and physical activity. Systematic assessment of body composition is extremely important both in terms of physical fitness preparation and promoting a healthy lifestyle. The aim of the conducted research was to assess the changes in body composition of cadets occurring as a result of intensive 4-week basic training.

Material and Methods: The study included men, 79 military students of land forces. Measurements of height and body weight were taken, along with body composition analysis and the calculation of BMI. Body composition was assessed using Bioelectrical Impedance Analysis (BIA). Body composition analysis included measurements of: fat mass, total body water, bone mass, fat free mass and muscle mass. Body composition was measured before and after 4-week military training.

Results: Significant differences were found in men regarding body weight, fat mass, fat free mass and muscle mass before and after basic military training. Prolonged intense military training affects the body weight and body composition of man undergoing military service.

Keywords:

Anthropometry, body composition, military students, body fat, muscle mass.