

Body Composition Characteristics in Bulgarian Rhythmic Gymnasts

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The aim is to determine the influence of sport activity on the body composition compartments in young rhythmic gymnasts at different age categories. A total of 27 rhythmic gymnasts, who had trained at least for two years and not less than 20 hours weekly, were tested. Athletes were divided into two groups: pre junior (mean age 8.87 ± 0.72 years) and junior (mean age 11.55 ± 0.52 years). The bioelectrical impedance analysis was used to evaluate the body composition. The gymnasts in pre junior' group had significantly lower mean values of height, weight, muscle mass, total body water and fat free mass compared to junior group. A significant positive correlation with strong intensity between muscle mass and height, weight, total body water and fat free mass in both assessed groups was established. The muscle mass of the gymnasts rises with increasing the sport experience but the body fat percentage and other obesity parameters keep relatively constant mean values.

Key words: body composition, rhythmic gymnasts, bioelectrical impedance analysis, young athletes.