

Hand Grip Strength in Prepubescent Tennis Players

(Preliminary study)

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The aim of the present study is to investigate a grip strength in young male tennis players aged 9-11 years. A total of 39 children (15 tennis players and 24 pupils) took part in the study. All participants were assessed for height, weight and BMI. The grip strength was measured by hand dynamometer in kilograms-force at both (dominant and non-dominant) upper limbs. Statistical analysis was made by SPSS 16.00 for Windows. The measuring showed that sportsmen have higher values on right upper limb hand grip strength than the control group (11.8 kg and 8.00 kg). There are similar results on the left upper limb: 7.79 kg (athletes) and 6.92 kg (non-athletes). A considerably higher difference of hand grip strength between the right and left hand was discovered in athletes (3.67kg.), compared to the control group (0.87 kg). The correlation is significantly higher between the left hand grip strength and body mass index ($p < 0.01$), weight and hand grip strength on the left hand ($p < 0.05$), and height and right hand grip strength ($p < 0.05$) in athlete group. Only in non-athlete group there is a high level of correlation between right and left hand grip strength ($p < 0.01$).

Key words: tennis players, prepubescent children, grip strength, BMI