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ABSTRACT BOOK

IZVODI SAOPŠTENJA



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ANALYSIS OF SEGMENTAL BODY COMPOSITION WITH BIOELECTRICAL IMPEDANCE IN ATHLETES AGED FROM 15 TO 18 YEARS

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Introduction. In North Macedonia (NM), there are no published data on segmental body composition in young athletes. The aim of this study was to analyze the segmental body composition in young athletes depending on age.

Materials and Methods. The sample comprised 140 male athletes from school leagues in NM, divided in 4 age categories between the ages of 15 and 18. Segmental body composition was analyzed with bioelectrical impedance on InBody 720 analyzer. Segmental fat and skeletal muscle mass in kg (FM and SMM) and percents (%FM and %SMM), were performed on: right arm (RA), left arm (LA), trunk (TR), right leg (RL) and left leg (LL).

Results. Significant differences on the trunk were shown for FM ($F = 3.644183$, $p < 0.05$) and % FM ($F = 2.83637$, $p < 0.05$) and those variables were higher in 15 years old athletes (3.29 ± 0.86 kg and 74.37 ± 32.12 %), compared to 18 years old athletes (4.59 ± 1.31 kg and 100.83 ± 42.76 %, respectively).

Conclusion. In young athletes from NM the age differences in segmental fat mass are better expressed, especially on the trunk, compared to muscle mass.

Keywords: Body Composition, Body Segments, Bioelectrical Impedance, Youth Athlete