

Variations in % Body Fat, the Amount of Skeletal Muscle and the Index of Physical Fitness in Relation to Sports Activity/Inactivity in Different Age Groups of the Adult Population in the Czech Republic

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Abstract : The aim of this study was to describe typical changes in several parameters of body composition - the amount of skeletal muscle mass (SMM), % body fat (BF) and body mass index (BMI) - in selected age categories (30+ years) of men and women in the Czech Republic, depending on the degree of sports activity. Study (n = 823, M = 343, F = 480) monitored differences in BF, SM and BMI in five age groups (from 30-39 years to 70+ years). Physically inactive individuals have ($p < 0.05$) higher % BF in comparison with physically active individuals (29.5 ± 0.59 vs. $27 \pm 0.38\%$), higher BMI (27.3 ± 0.32 vs. 26.1 ± 0.20 kg/m²), but lower SM (39.0 ± 0.33 vs. $40.4 \pm 0.21\%$). The results indicate that with an increasing age, there is a trend towards increasing values of BMI and % BF, and decreasing values of SMM.

Keywords : body composition, body fat, physical activity, skeletal muscle

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