# 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 


#### Abstract

Authors : Hřebíčková Sylva, Grasgruber Pavel, Ondráček Jan, Cacek Jan, Kalina Tomáš 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 ( $\mathrm{n}=823, \mathrm{M}=343, \mathrm{~F}=480$ ) monitored differences in BF, SM and BMI in five age groups (from 30-39 years to 70+ years). Physically inactive individuals have ( $\mathrm{p}<$ 0.05 ) higher \% BF in comparison with physically active individuals ( $29.5 \pm 0.59$ vs. $27 \pm 0.38 \%$ ), higher BMI ( $27.3 \pm 0.32$ vs. $26.1 \pm 0.20 \mathrm{~kg} / \mathrm{m} 2$ ), but lower $\mathrm{SM}(39.0 \pm 0.33$ 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
Conference Title : ICBB 2014 : International Conference on Bioinformatics and Biomedicine
Conference Location : Istanbul, Türkiye
Conference Dates : May 22-23, 2014

