

Abstract

Title: Body composition, fitness and life style of children at the younger school age at the Liberec region

Objectives: The aim of this work is the evaluation of the body composition of pupils at the younger school age at the Liberec region, to check their fitness and to estimate the correlation between these factors, the amount of physical activity, the way of alimentation and the way of spending their leisure time.

Methods: The body composition of the set of 41 children of the age 8 and 10 years (25 boys (i.e. 61%) and 16 girls (i.e. 39%)) was tested by the measurement on the BODYSTAT apparatus. The fitness of this set was estimated by three motoric tests: the long jump (without run-up), the shuttle run 4x10m and the staying at the over-gripped pull-up. The amount of the physical activity, the way the nutrition and the spending of the leisure time was obtained by the written questionnaire with the help of the modified Dotazník 6. CAV 2001 pro děti a mládež.

Results: In the considered set of children, the overweight or obesity was estimated in the case of 10 children (i.e. 24,4%) from BMI percentil graphs and in the case of 5 children (i.e. 12,2%) according to the body fat measured by the BODYSTAT apparatus. The number of obese or overweighted children considered for percentual evaluations in this work is 10 according to BMI graphs.

One child with the overweight or obesity does not have a warm meal at school. Children having the overweight or the obesity have a breakfast, snacks, a lunch, a dinner and eat the fruit and the vegetable regularly.

Nine children (i.e. 22%) spend more than 14 hours per week at the computer or by watching TV. The obesity was estimated at four children from this set (i.e. 44%), which means nearly 50% increase in the overweight or obesity in comparison to the obesity 24.4% at the set of all observed children. The below-averaged performance in the long jump had 5 children from the set of 9 children spending more than 14 hours per week at the computer/by watching TV (i.e. 55,6%), in the shuttle run 2 these

children (i.e. 22,2%) and in the staying at the over-gripped pull-up 5 these children (i.e. 55,6%).

23 children (i.e. 56.1%) from the set of all tested children do sport less than 6-7 hours per week, this ratio increases to 70% (7 children) in the group of overweighted or obese children.

The below-average result in the long jump had 9 children with the overweight or obesity (i.e. 90,0% from ten overweighted or obese children), in the shuttle run 3 these children (30,0%), in the staying at the over-gripped pull-up 10 these children (i.e. 100,0%).

The below-averaged results of all observed children were 39% in the long jump, 14,6% in the shuttle run and 39% in the staying at the over-gripped pull-up. The results of all tests showed that the percentage of below-averaged performances at the group of children spending a lot of time (more than 14 hours per week) at the computer or by watching TV is greater. The same result was obtained also for the group of obese/overweighted children having higher percentage of below-averaged performances.

Keywords: body fat, overweight, obesity, motoric tests, physical activity, watching TV, computer