Adiposity as related to physical activity, fitness and musculoskeletal development in growing obese

Along with increasing prevalence of obesity, the level of functional capacity and physical fitness has been decreasing during last decades decreasing. Increased adiposity has been revealed even in subjects in which body mass index (BMI) was not markedly increased. Moreover, this problem has been manifested not only in school age and adolescence, but already in preschool children in which the comparisons of body fatness evaluated recently showed significant increase as compared to the results assessed fifty years ago; performance in motor tests during the same period significantly worsened. This has been the result of reduced physical activity and increasing sedentarism which has been tackling already second-third generation. Lifestyle in families, example of inactive parents, and overall lifestyle has been influencing the development of children already since the very beginning of life. In addition to the decreased motor and cardiorespiratory capacity, serious musculoskeletal problems started to appear, again in very young subjects—deteriorated body posture, flatfoot, scolioses, pain of the back, knee, hip, shoulder joints, genua vara and valga, etc. These musculoskeletal problems contribute to further to the reduction of physical activity and sedentarism of youngest subjects. However, the treatment of the obese using both suitable exercise, monitored diet and psychological intervention has always resulted in reduced BMI and body fatness, along with increased cardiorespiratory efficiency, and improved skill and endurance. These interventions, however, should be, to achieve desirable results, permanent and of desirable character. Results of both cross-sectional and longitudinal measurements concerning preschool, school and adolescent populations will be overviewed.

Biography

Jana Parizkova MD, Ph.D., DSc, is a Professor and senior research worker in Obesity Management Centre, Institute of Endocrinology, Prague, Czech Republic. She published 600 articles in international and national scientific journals, and 20 monographs (5 in the USA, others in Switzerland, Germany, Poland, Czech Rep., etc.) concerning body composition and functional capacity as related to physical activity and nutrition in growing, adult and aged subjects of normal, athletic and obese populations and more than 1100 citations in SCI. She is invited speaker for international and national scientific congresses, symposia, conferences, like IUNS, IUAES, ICAF, ICA, etc., organizer of symposia, and member of national and international scientific associations, and journals.

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