

ABSTRACT

This thesis is focused on the analysis of intersexual differences in adiposity markers within the urban population of Czech children from 11,00 to 15,99 years. This age range encompasses puberty, which is one of the critical periods for the possible development of overweight and obesity. The sample PRAHA 2013 consists of 356 girls and 353 boys, which were surveyed for basic anthropometric indicators - body height, body weight, BMI, mid-upper arm circumference, and the thickness of four skinfolds. Intersexual differences discovered in measured parameters show statistical significance ($p < 0,01$ resp. $p < 0,001$) and it corresponds with the characteristic changes of pubertal development in both genders. Testing file PRAHA 2013 against reference standards and its comparison with the results of the last Czechoslovak spartakiade in 1985 points to a positive secular trend of increasing body height. However, the increase in weight parameters is still continuing. Proband from the year 2013 reach higher body weight values, BMI, and skinfold thickness in comparison with children of the same age in 1985, 1991, resp. 2001. Significant differences were found out in the most of age categories in both genders.

Keywords: adiposity tissue, subcutaneous fat, skinfolds, body fat distribution, sexual dimorphism, obesity, secular trend