



Title: (do not enter authors names here)	<p style="text-align: center;">BODY COMPOSITION IN MODERN POPULATION OF UKRAINIAN ADOLESCENS</p> <p style="text-align: center;">T. Chaychenko, G.Senatorova, I.Sanina, O.Onikienko, V.Tsimbal, N.Buzhinskaya, T.Ishenko, O.Omelchenko, T. Malich, M.Urivaeva</p>
Abstract:	<p>Introduction: There is a tendency to the pediatric obesity epidemy across the World. The information of the modern body composition peculiarities is necessary to determine a tendency to the overweight in pediatric population.</p> <p>Methods: There are 969 healthy and 208 obese adolescents aged 10 to 17 y.o. from industrial region of Ukraine were anthropometrically examined with measuring weight, height, waist and hip, upper-arm and upper-leg circumferences, standard skinfolds, calculation of fat, lean and muscle body mass.</p> <p>Results: BMI above 85 percentile was registered in 15,0±2,1% (95% CI) adolescents. It was established fat mass predominance in girls ($p<0,001$) and muscle mass in boys ($p<0,01$). Determined that the percentage of body fat is correlated with the waist to height ratio($r=0,67$), whereas relationship with the waist to hip ratio has not been established ($r=0,09$). According to the regression analysis some equations to calculate the fat and muscle components of the body composition by the simple anthropometric parameters were elaborated.</p> <p>Analysis of the body composition according to SD of BMI showed a progressive increase in fat and lean body mass. It was found the muscular component was reduced both in BMI deficiency and excess.</p> <p>Conclusion: The prevalence of overweight in Ukrainian adolescence lower compared with Western European countries. It seems waist to height ratio much better reflects the abdominal fat predisposition rather than waist to hip ratio, which is mainly gender dependent. Both low and high BMI are accompanied by a muscle mass decreasing. All anthropometric parameters significantly clustered relatively to BMI SD as well as cardiovascular risk markers in obese.</p>