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Body composition and physical activity assessment by euthopic and obese adolescents

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The increase of prevalence of overweight and obesity in adolescents has called the attention of researchers and professionals in the health area, because the consequences of the comorbidities associated with weight gains. Inactivity is one of the risk factors for adolescents. In the literature, precise methods to assess physical activity are not found. The aim of this research is to assess the body composition and the level of physical activity by euthopic and obese adolescents classified by the growth curve of the World Health Organization, 2006 in Brazil (WHO, 2006). Methods: 29 adolescents were selected aged between 11 and 15 years from state schools of Ribeirão Preto- SP- Brazil. Nineteen are euthopic and 10 are obese. Weight, height, waist and hip circumference and electric bioimpedance were measured it. To assess physical activity it was used accelerometer (activPAL®, Glasgow, UK) for 7 days and IPAQ questionnaire. It was also evaluated eating habits by the food behavior questionnaire. Results: BMI mean for obese was 29.40 kg/m² and 21.27 kg/m² for the euthopic. The obese adolescents classified by BMI showed higher mean fat mass by electric bioimpedance when compared to euthopic adolescents, 38.6% versus 26%, respectively. The relation waist/hip circumference was higher in the obese group than in the euthopic (0.85 for obese and 0.71 for euthopic). Reading to high cardiovascular risk above 0.8. The level of physical inactivity by IPAQ was 89.5% for the euthopic and 80% for the obese. The inactivity classification was determined by those individuals who did less than 300 minutes of physical activity per week. The results of the accelerometer did not show statistical difference in the activities performed by the obese and euthrophic. These activities are the time spend sitting, walking and standing. 63% of the euthopic and 60% of the obese have the habit of watching television while eating. Conclusion: Adolescents have the same profile for physical activity and eating habits apart from the anthropometric rate. They spend a lot of time sitting and lying down in both groups without gender difference which is related to the increase of fat mass and cardiovascular risk specially in obese adolescents.