

Overweight and obesity: a major problem among belgian adolescents issued from a high cardiovascular risk population.

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Cardiovascular risk factors were studied in a sample of 1526 adolescents issued from a high risk MONICA population in the province of Luxemburg (Belgium). The subjects were recruited in 24 schools with a multi-clustered staged sampling technique. Participation rate was 83.6 % and the sample is representative of the adolescent population for gender, age, residence and education.

Anthropometric measures include weight, height, skinfolds and waist/hip circumferences.

Obesity and overweight were defined by the relative BMI ($RBMI = \text{observed BMI} / \text{BMI P50}$) as it is weakly correlated with age and height during adolescence.

Twelve percent of the population ($n=185$) are overweight ($RBMI > 110$) whereas 16.1 % are obese ($RBMI > 120$). Differences between genders are significant with 19.2 % of obesity among the boys and 13.1 % among the girls ($P=0.001$). The prevalence decreases significantly in both genders with age ($P < 0.05$).

The role of social factors was analysed by the learning option and the parents education level. The prevalence of obesity is significantly higher in the technical options than in the classical ones ($P=0.0006$). Children of parents who achieved at best their secondary school are significantly more frequently obese than children of parents with a higher education level ($P=0.0001$).

Positive significant correlations were found for both genders with systolic and diastolic blood pressures ($P=0.0001$) and for boys with total cholesterolemia ($P=0.001$). The relationships with smoking status and diet ($n=239$) were not significant.

This study analyses obesity parameters among adolescents from a province at high risk for cardiovascular diseases. The findings corroborate the results obtained in adults and children i.e. the high prevalence of obesity in both genders. Further health promotion actions towards decreasing prevalence of obesity and associated cardiovascular risk factors should focus on adolescents with a lower educational background.