

ABSTRACT SUBMISSION FORM

Meeting of the Working Group on Epidemiology and Prevention
of the European Society of Cardiology
May 22 - 25th, 1996
PILSEN, Czech Republic

72

Total Cholesterol Levels during Adolescence: Results of a Belgian Monica Population

D. Paulus, A. Saint-Remy, G. Rorive, M. Jeanjean
Association Interuniversitaire pour la Prévention des Maladies
Cardio-Vasculaires, Brussels, Belgium

Cardiovascular risk factors were measured in 1511 adolescents (12-17 years) randomly selected from a high risk MONICA population in the Belgian province of Luxembourg. The subjects were recruited with a multi-clustered staged sampling technique in 24 schools; participation rate was 83.5 %. The sample is representative of the adolescent population for gender, age, residence and education level.

The mean total cholesterol (TC) level measured by the Reflotron method is 167 mg/dl (sd = 31 mg/dl). For boys (n=738), TC decreases significantly from 12 to 16 years. For girls (n=773) a U-shaped curve reaches its minimum at 15 years. Thirty-one percent (31 %, n=468) of the population have borderline values (170-199 mg/dl) and 14.3 % (n=216) exhibit a high TC level (>199 mg/dl) according to the US recommendations. Twenty-five percent (25 %, n=51) of the adolescents with a high TC have one or both parents reporting hypercholesterolemia or cardiovascular disease. Positive correlations exist with obesity parameters ($p < 0.01$) but no correlation was found with blood pressure.

This study shows high TC levels in adolescents issued from a high risk MONICA population; these levels are related to other cardiovascular risk factors especially obesity.