

on eventual increases in physical activity and a decrease in the number of hours spent watching TV or using a computer.

Results: In light of a reduction in the number of obese subjects to 3.3% and the fact that 7.8% have hypertension, one sees a reduction in the consumption of pasta in 40% of the cases in the past 2 years, of condiments and fat in 69%, and an increase in: the consumption of fruit (73%), vegetables (74%) and fish (53%); physical activity (68%); and reduction of TV time (86%). It is also important to note that the parents in 77% of the cases support an increase in the number

of school hours dedicated to physical education for their children.

Conclusions: Parents and minors adherence to the study is important in leading to a reduction in the number of obese children in line with a reduction in the intake of condiments and fats and increase in the consumption of fruits, vegetables and fish. Moving towards support for greater physical activity with parents wanting more school hours dedicated to physical education is also very important.

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51 – Relationship between cardiorespiratory fitness levels and dietary intake among European adolescents: the HELENA Study

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Introduction: Cardiorespiratory fitness (CRF) and dietary behavior are important factors related with adolescent's health status. The objective of the present study was to analyse the relationship between CRF levels and dietary intake in European adolescents.

Method: The present study comprised a total of 1894 adolescents from eight European cities. CRF and dietary intake were measured using the 20-m shuttle run test and 24 h dietary recalls (HELENA-DIAT) on two non-consecutive days, respectively. Weight and height were measured and BMI calculated. Partial Pearson's correlation and analysis of covariance (ANCOVA) were performed. The adolescents were grouped by different CRF levels (unhealthy *v.* healthy) according to the FITNESS-GRAM standards and BMI categories (non-overweight *v.* overweight) according to International age- and gender-specific cut-off points.

Results: Energy and nutrient intake (macronutrients, vitamin C, fibre and calcium) were positively associated with CRF in males ($P < 0.05$, except fat) and negatively

associated with BMI ($P < 0.05$, except protein, vitamin C, fibre and calcium in males and calcium in females). Non-overweight males with healthy CRF showed the highest energy and nutrient intake ($P < 0.05$, except vitamin C and fibre). In females, calcium intake differed between BMI categories, independent of the CRF levels.

Conclusions: Dietary intake differs between adolescents with different CRF levels and BMI categories. Non-overweight males with better CRF levels seemed to report higher energy and nutrient intake. This is an important finding, because it is probable that overweight in adolescents is due to energy imbalance, caused by low exercise time.

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