

Cardiorespiratory capacity in children living at moderate altitude [Capacidad cardio-respiratoria de niños escolares que viven a moderada altitud]

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Objective: To determine the cardiorespiratory capacity of school children living at moderate altitude.

Patients and Method: 795 children (394 children and 401 girls) were selected from urban public schools in Arequipa, Peru at moderate altitude (2,320 m). Anthropometric variables (body mass, height, body fat percentage) and cardiorespiratory capacity were assessed using the Course

Navette test, considering the following categories: Deficient, poor, fair, good, very good and excellent. **Results:** The results showed significant differences in all categories ($p < 0.05$). It was

described that the median values of the poor and deficient categories in both gender were lower than what is considered acceptable ($p < 0.05$). It was concluded that 19% of boys and 21% of girls showed low level of cardiorespiratory capacity and a low negative correlation with overweight ($r = -0.20$ to -0.22) and a moderate negative correlation with obesity ($r = -0.39$ to -0.42) were described for both genders. **Conclusions:** Low levels of cardiorespiratory capacity in boys and girls living at moderate altitude are observed, which is negatively correlated with excess body weight. The results suggest that 1 in 5 children are likely to suffer some type of cardiovascular event.

Cardiorespiratory capacity

Kids

Moderate altitude

School children

altitude

article

body fat

body height

body mass

cardiorespiratory capacity

cardiovascular disease

female

human

human experiment

male

metabolic parameters

obesity

body weight

child

complication

cross-sectional study

exercise test

heart function test

obesity

Overweight

Peru

physiology

urban population

Altitude

Body Weight

Child

Cross-Sectional Studies

Exercise Test

Female

Heart Function Tests

Humans

Male

Obesity

Overweight

Peru

Urban Population