

Aerobic capacity of chilean adults and elderly: Proposal of classification by regional percentiles [Capacidade aeróbia de adultos e idosos chilenos: Proposta de classificação por percentis regionais] [Capacidad aeróbica de adultos y ancianos chilenos: Propuesta de clasificación por percentiles regionales]

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Introduction: Aerobic fitness is an important predictor that contributes to the preservation of functional independence during the aging process. Its measurement represents a fundamental tool in the identification of multiple health problems. Objective: To compare the aerobic capacity of adults and elderly subjects through international studies and to develop percentiles by age group using the LMS method. Methods: A cross-sectional descriptive study was conducted with 1146 subjects (437 men and 709 women). The age group of the sample ranged from 50 to 84 years. The subjects evaluated came from the physical activity programs offered by the National Sports Institute (IND) and by the city council of Talca (Chile). Body mass, stature, oxygen saturation (SatO<sub>2</sub>), six-minute walk test, and systolic and diastolic blood pressure were assessed. Body Mass Index (BMI) was calculated for both sexes. The LMS method was used to propose the percent distribution. Results: Aerobic capacity decreases with age (28.5% for men and 29.9% for women). There was a negative relationship between age and the six-minute walk test (men  $r = -0.13$  and women  $r = -0.39$ ). There

was a discrepancy between the elderly subjects in the current study and those from international studies. The normative data for the classification of aerobic fitness were expressed in percentiles (p3, p5, p10, p15, p25, p50, p75, p85, p90, p95 and p97). Conclusion: The aerobic performance of elderly subjects diminishes as they age; in addition, the current results differ from international studies, which motivated the development of percentiles to classify aerobic fitness in everyday situations, especially in places with few resources and particularly where field tests are considered a priority for large-scale physical evaluation. Level of evidence II; Diagnostic studies ? investigation of diagnostic test. © 2019, Redprint Editora Ltda. All rights reserved.

Aged

Exercise

Exercise test

Walk test

adult

aerobic capacity

age

aged

article

body height

body mass

Chile

Chilean

controlled study

diastolic blood pressure

exercise test

female

human

human experiment

major clinical study

male

oxygen saturation

physical activity

physical examination

six minute walk test

sport