QUEEN’S COLLEGE STEP TEST AND ITS VALIDITY OF VO2MAX PREDICTION ON YOUNG HEALTHY FEMALES

Author: Aaron Newland, Kevin Nguyen
Sponsor: Judy R. Wilson, Ph.D. KINE 4400
Cardiovascular Research Laboratory, The University of Texas at Arlington, Arlington, TX

Abstract

Objective: The Queen's college step test (QCT) is a submaximal exercise test that is used to predict maximal oxygen consumption. The aim was to evaluate the validity of this test to predict VO2max.

Methods

Subjects were healthy females aged 19 to 24 years old. They performed the QCT and the Bruce protocol. The QCT was a 3-minute step test at a rate of 22 steps per minute. The Bruce protocol was a maximal graded exercise test on a treadmill. HR and RPE were recorded during both tests.

Results

Statistical analysis was performed using a paired, two-tailed t-test on Excel. The alpha level for significance was set to p < 0.05.

Conclusions

There was no significant difference between predicted and actual measurements of HRmax and VO2max.

References