Using the Canadian Home Fitness Test to Predict Maximum Oxygen Consumption

Overview: The Canadian Home Fitness Test was developed as a self-administered test of cardiorespiratory fitness and serobic capacity which could be performed at home. Based on the person's response to the submaximal workload involved a regression equation was developed to predict maximum oxygen consumption.

Population evaluated: men and women between the ages of 15 and 74 years

Procedure for the Canadian Home Fitness Test as developed by Bailey et al:

• The test consists of a series of stepping sequences performed on double 20-cm steps. A person starts at the bottom of the step device proceeding through a series of 6 steps to return to the beginning position from which the sequence is repeated.

• The exercise is performed to a 6 count musical rhythm with a progressive increase in tempo.

• There are 7 stages for men and 6 stages for women.

• Testing is designed so that a person will exercise at two levels of intensity with the initial level determined by the patient's age.

maximum oxygen consumption in mL per kg per minute = 42.5 + (16.6 * (oxygen consumption in L/min)) - (0.12 * (weight in kilograms)) - (0.12 * (post-exercise heart rate in beats/min)) - (0.24 * (age in years))

where

• oxygen consumption is the average oxygen cost of the last completed exercise stage

Interpretation of Aerobic Capacity Based on

Oxygen Consumption in mL per kg per minute

Men	20-29 years	30-39 years	40-49 years	>= 50 years
excellent	> 58	> 48	> 48	> 45
good	48 - 57	42 - 47	41 - 47	37 - 44
average	37 - 47	35 - 41	33 - 40	30 - 36
below average	27 - 36	28 - 34	26 - 32	22 - 29
poor	<= 26	<=27	<= 25	<= 21