Sub-Maximal Treadmill Walking Test Procedure

REQUIRED EQUIPMENT: Treadmill, heart rate monitor, calculator, clipboard, Fitness Testing Recording Form

PROCEDURE:

1. Record client's weight _____kg
2. Record client's age _____yrs.
3. Record client's resting heart rate _____bpm
4. Calculate client's Predicted Maximal Heart Rate (220 – age) _____bpm
5. Calculate 50% and 70% of client's PMHR:
    a. (PMHR x .5) _____bpm
    b. (PMHR x .7) _____bpm
6. Explain the testing procedures to the client
    a. The test commences with a 4 minute warm up in which a speed is chosen that will stabilise your heart rate between 50 – 70 % PMHR,
    b. The incline will be increased to a gradient of 5% and you will walk for another 4 minutes.
    c. Your heart rate will be recorded after 4 minutes
    d. You will undergo a cool down and stretch
7. Explain to the client how to use treadmill and safety features of machine
8. Allow the client to become familiar with the treadmill and do some stretches to warm up
9. Ensure the treadmill is set at gradient of 0% and instruct the client to start walking at comfortable pace
10. Gradually increase the speed of the treadmill until the client is walking at a heart rate between 50-70% PMHR
11. After 4 minutes record the speed and increase the gradient to 5% - the speed is not to be changed for the duration of the test.
12. Ask the client to continue walking for another 4 minutes
13. At the end of the 4 minutes record the client's heart rate _____bpm
14. Allow the client to cool down

FORMULAS AND CALCULATIONS

MVO² = 15.1 + (13.55 x speed) – (0.327 x final heart rate) – (0.163 x speed x age) + (0.00504 x final heart rate x age) + [5.98 x gender (male = 1, female = 0)].

MVO² =
15.1 + (13.55 x _____mph) – (0.327 x _____bpm) – (0.163 x_____ mph x _____yrs) + (0.00504 x _____ bpm x _____yrs) + (5.98 x _____).

MVO² = 15.1 + (_____) – (_____) – (_____) + (_____) + _____

MVO² = _____

NORMATIVE / COMPARATIVE DATA:

	Male (mls/kg/min)						Female (mls/kg/min)					
	18-25	26-35	36-45	46-55	56-65	66+	18-25	26-35	36-45	46-55	56-65	66+
Excellent	80-63	70-58	77-53	60-47	58-43	50-38	71-58	69-54	66-46	64-42	57-38	51-33
Good	59-53	54-50	49-44	43-40	39-37	36-33	54-48	51-46	44-39	39-35	36-32	31-28
Above Average	51-47	47-44	42-40	38-35	35-33	32-29	46-42	43-40	37-34	33-31	31-28	27-25
Average	46-43	42-40	38-35	35-32	31-30	28-25	41-39	38-35	33-31	30-28	27-25	24-22
Below Average	41-38	39-35	34-32	31-29	29-26	25-22	37-34	34-31	30-28	27-25	24-22	22-20
Poor	35-31	34-31	30-27	28-26	25-22	21-20	32-29	30-26	26-23	24-21	21-19	18-17
Very Poor	29-20	28-20	25-19	23-18	21-16	18-15	26-18	25-20	21-18	19-16	17-14	16-14