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Date: **29-Aug-11**

Name: **William D. Roberts** DOB: **19-Dec-54** Age: **56** ID: **008**

Sex: **M** Height: **180 cm** Smoker: **N** Pack years: **N/A** Student: **Patrick Morgan**

Race: **W** Weight: **100.45 Kg** Faculty: **Colin D. Chapman, M.D.**

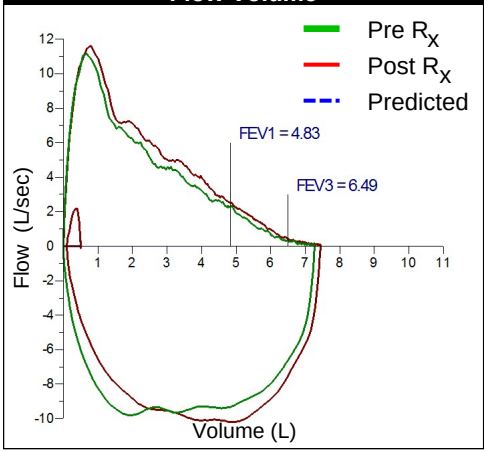
BMI: **31.0**

Pulmonary Function Testing Data

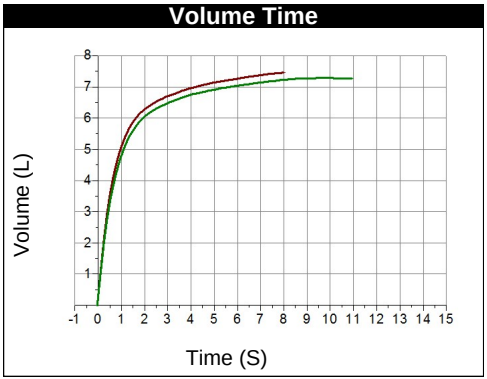
Dynamic Spirometry

			Pre Bronchodilator		Post Bronchodilator		
		Predicted	Actual	% Pred	Actual	% Pred	% Change
FVC	L	4.87	**7.27**	149	**7.45**	153	2
FEV_1	L	3.77	**4.83**	128	**5.11**	136	6
FEV_1 / FVC	%	78	**66**	----	**69**	----	--
FEF_{25-75} [ISO]	L/s	----	**3.16**	----	**3.67**	----	16
PEFR	L/s	----	**11.17**	----	**11.64**	----	4
PIFR	L/s	----	**9.81**	----	**10.19**	----	4
FET	sec	----	**10.97**	----	**8.02**	----	-27
V [EXT]	L	----	**0.11**	----	**0.11**	----	0
MVV	L/m	131.9	**196.6**	149	**----**	----	--

Flow Volume



Volume Time



Cardiopulmonary Exercise Data

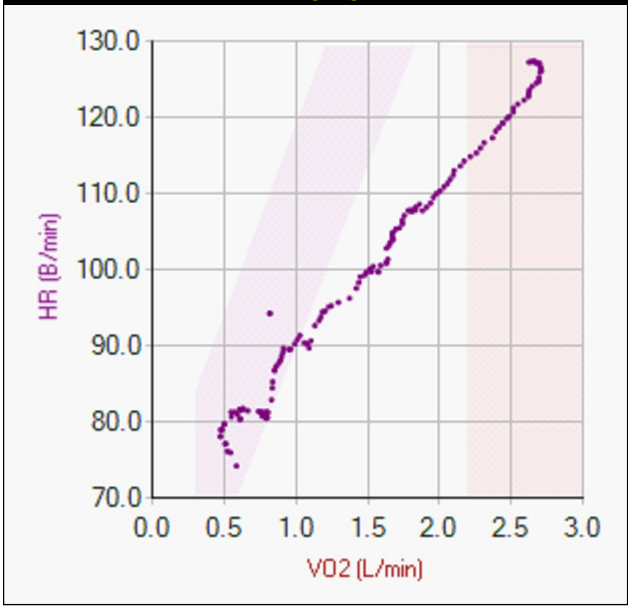
Cardiopulmonary Exercise Summary

Spirometry	*Units*	**Predicted**	**Measured**	**% Pred**
FVC	(L)	4.87	**7.27**	149
FEV1	(L)	3.77	**4.83**	128
MVV	(L/min)	131.9	**196.6**	149
Resting Data				
Heart Rate	(bpm)		**80**	
SpO2	(%)		**----**	
Systolic BP	(mmHg)		**----**	
Diastolic BP	(mmHg)		**----**	

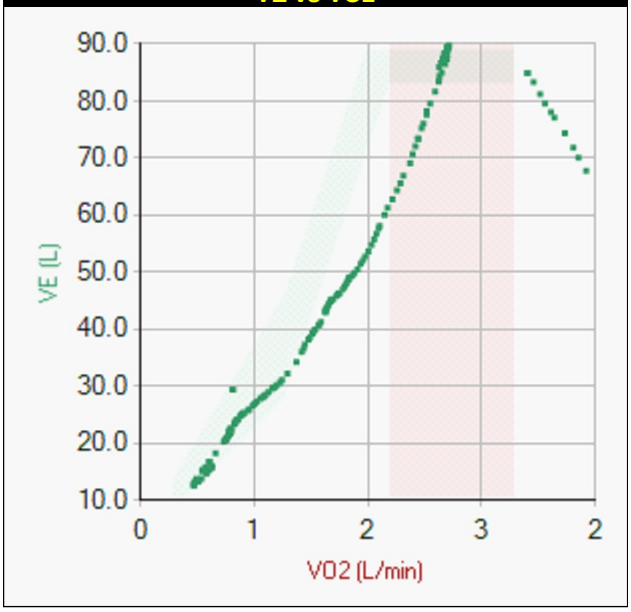
Exercise Duration: 6.69 Min

Peak Cardiovascular Responses		**Predicted**	**Measured**	**% Pred**
Parameter	*Units*			
VO2	(ml/kg/min)	33.59	**30.3**	90
VO2	(L/min)	2.74	**3.04**	111
VCO2	(L/min)		**3.04**	
Work	(Watts)	209	**197**	94
Anaerobic Threshold (AT)	(L/min)	> ----	**2.01**	
AT (% Predicted Max VO2)	(L/min)	> 126%	**73**	
Heart Rate	(bpm)	163	**129**	79
O2 Pulse	(mL/beat)	17.56	**23.6**	134
Systolic BP (Max)	(mmHg)	----	**----**	----
Diastolic BP (Max)	(mmHg)	85-105	**----**	
Heart Rate Reserve	(bpm)	<15	**34**	
Peak Ventilatory Responses				
VE Max	(L/min BTPS)	092.4	**102.8**	111
Tidal Volume (VT)	(L)	----	**4.05**	
Respiratory Rate (RR)	(Breaths/min)	<50	**25**	
Breathing Reserve	(%)	20-40	**87**	
Gas-Exchange Responses				
VE/VO2 @ AT			**27**	
VE/VCO2 @ AT			**29**	
Respiratory Quotient (Peak)		1.1-1.3	**1.00**	
SpO2 @ Peak			**----**	

HR vs VO2



VE vs VO2

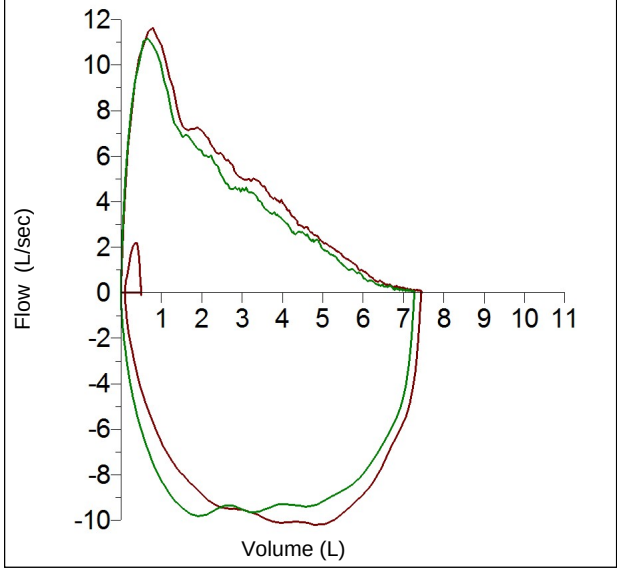


Post Exercise Challenge Data

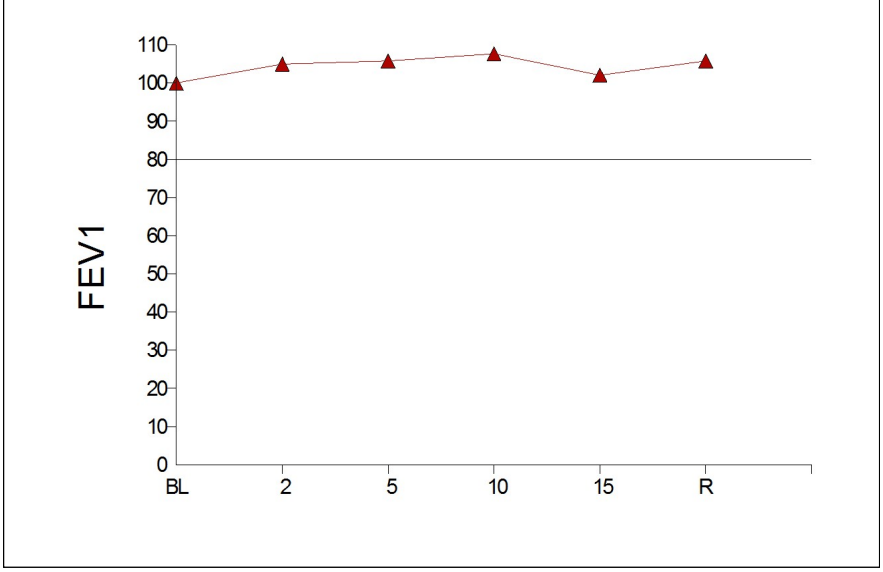
Challenge Protocol = CHP EIA Protocol

	Pred = 4.87			Pred = 3.77			Pred = 78			Pred = ---		
	FVC	**% Pred**	% Chg	**FEV1**	**% Pred**	% Chg	**FEV1/FVC**	**% Pred**	% Chg	**PEFR**	**% Pred**	% Chg
Baseline	**7.27**	149	---	**4.83**	128	---	**66**	85	---	**11.17**	---	---
Post Treadmill	**7.22**	148	-1	**5.07**	134	5	**70**	90	6	**11.58**	---	4
12 min post exercise	**7.11**	146	-2	**5.11**	136	6	**72**	92	9	**11.49**	---	3
20 min post exercise	**7.34**	151	1	**5.20**	138	8	**71**	91	8	**11.45**	---	3
Post BD	**7.45**	153	2	**5.11**	136	6	**69**	88	5	**11.64**	---	4

Challenge Overlay



Exercise Response Graph



Technologist Comments:

Bronchodilator used was Albuterol.

Physician Interpretation

Spirometry indicates possible obstructive pulmonary impairment. Obesity may limit exercise capacity. Aerobic capacity is normal. Anaerobic (ventilatory) threshold suggests normal cardiovascular conditioning. The 30 bmp reduction in heart rate at 2 minutes post-exercise indicates normal heart rate recovery. Normal breathing reserve indicates chest bellows capacity is not limiting. The subject's breathing pattern with respect to respiratory rate and tidal volume during exercise is normal. No significant oxygen desaturation is noted during exercise.

Colin D. Chapman, M.D.

Date Interp: Time Interp: