

**KINS 153 – Clinical Exercise Testing, Interpretation, and Prescription
Case Study**

1. Complete the following questions from your GXT last week:
 - a) Interpret the name: _____'s VO₂max? What is the ideal VO₂max that meets both health and fitness criteria? (1 point)
 - b) What was the difference between the estimated VO₂max (ACSM metabolic equation) and the criterion VO₂max? Calculate the percent error of the ACSM metabolic equation. (1 point)
 - c) How would you design an exercise prescription for your client? Please be sure to refer to ACSM Ch 6. and Heyward! (3 points)

2. Bill is being tested at the Human Performance Laboratory. He is undergoing a maximal VO₂ max test. Exercise protocol is 3 MPH at 0% grade with 2% grade increase every 3 min. His data is below.

Age = 76, Wt: 165 lbs HT: 65 inches Resting HR: 75 Resting BP 128/86

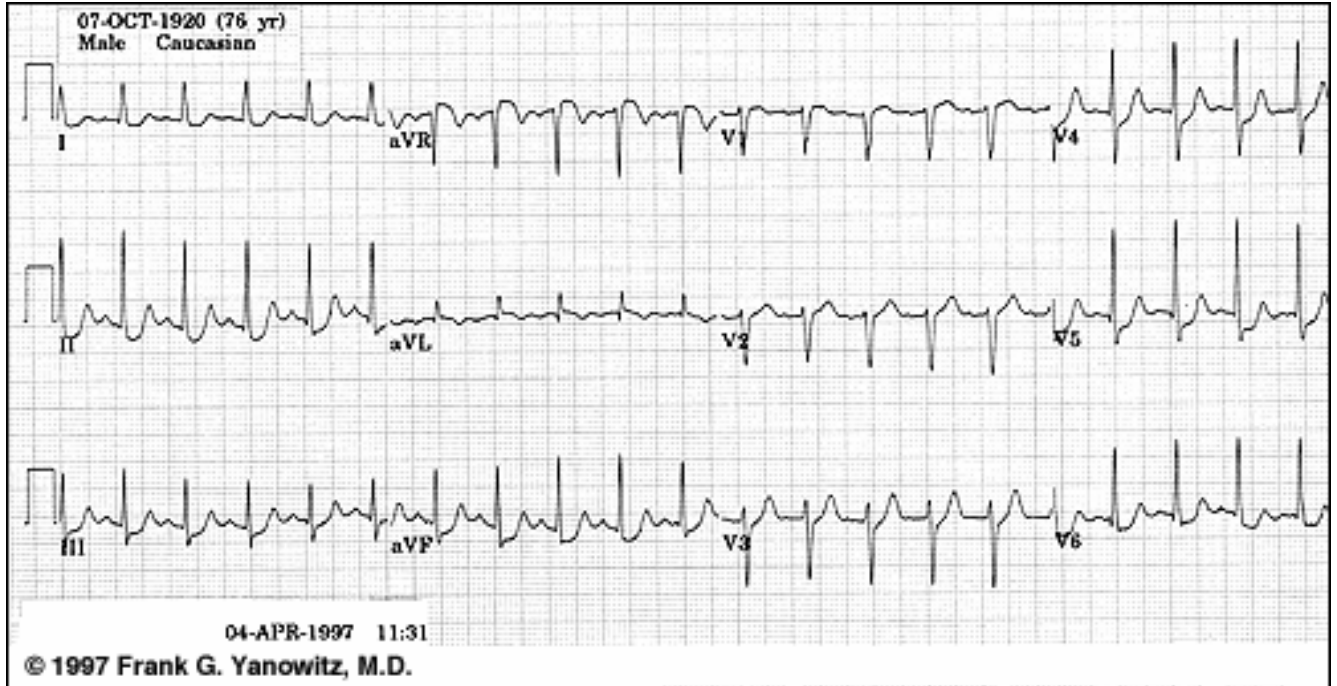
Medical History = hypercholesterolemia, no signs or symptoms suggestive of CAD, and no family history

Medications: 2 aspirins per day,

Physical Activity: Walks for 15 minutes 3 days a week at leisurely pace

Stage	Speed	Grade	VO ₂	HR	ECG	BP	RPE	Signs and symptoms
1	3	0		109	Normal	136/88	8	Normal
2	3	2		124	Normal	160/94	10	Normal
3	3	4		141	Normal	170/98	12	Normal
4	3	6		153	Normal	182/100	15	Normal
5	3	8			See Attached ECG	198/100	16	Normal

- a) What is your course of action for this test? Complete the table above and provide in the space below your rationale for your decision. Please be sure to refer to ACSM Ch 5. (1 points)
- b) Based on the last completed stage, what was his estimated VO₂max? Use ACSM metabolic Equations (1 point)
- c) How would you interpret his exercise test? Be sure to interpret all measurements. Please be sure to refer to ACSM Ch 6. (2 points)
- d) If she was to enter a cardiac rehabilitation program how would you stratify her? Please be sure to refer to ACSM Ch 8. (1 point)



- 1) Calculate the atrial and ventricular rate: Atrial _____ bpm Ventricular _____ bpm
 What is the rhythm ? Regular or Irregular (circle the answer)
 Why? _____
- 2) P waves normal or abnormal in shape/sequence (circle the answer)
 Why? _____
- 3) PR interval duration? _____ sec
 PR Interval normal or abnormal (circle the answer)
- 4) QRS interval duration? _____ sec
 QRS Interval normal or abnormal (circle the answer)
 Why? _____
- 5) Any other abnormal findings? _____
- 6) What is the diagnosis for this ECG strip? _____