## What I studied to help me pass the ACSM CEP Exam

- ACSM's Guidelines for Exercise Testing and Prescription
  - Overall best book to look at and know for the exam
  - First read the book and took detailed notes to refer back to
  - Make sure to look at tables (or boxes) closely
  - Know how to risk stratify a patient and what it means. Also know if they need supervision or not during submaximal and maximal exercise.
  - Know absolute and relative contradictions to beginning an exercise test\*
  - Know absolute and relative contradictions for ending an exercise test\*
  - Know how to do metabolic calculations
  - Metabolic Conversions for a person running a specific amount of miles in a specific time \*\*
  - Know the recommended amounts of moderate and vigorous exercise.
    - Exercise amounts for obese, weight management, PAD\*, CHF, special populations and after MI
  - Know how often an individual need to stretch and do resistance training per week
  - What is in a comprehensive health fitness evaluation
  - Know what can cause false negatives
  - Sensitivity and specificity and what can influence them
  - Know pregnancy and children contraindications to exercise and recommended exercise levels.
  - Know ways to prevent hypoglycemia in diabetes patients
  - When diabetic patients should exercise and the effects
  - Know chapter 11: Behavioral Theories and Strategies for Promoting Exercise
    - Transtheoretical Model (TTM)
    - Motivational Interviewing
      - Change talk
      - Client-centered PA counseling
  - Medications
    - B-blockers- olol
      - Decrease HR at rest and during exercise, decrease BP at rest and with exertion, decrease ischemic response during exercise increase exercise tolerance
    - Calcium Channel Blockers- azem, amil
      - Decrease HR at resting and during exercise, decrease HR in most cases, decrease ischemic response and may increase exercise tolerance
    - ACE-inhibitors- ril

- No effect on HR, decrease BP\* at rest and during exercise, no effect on exercise tolerance
- Diuretics- ide, one, ene
  - No effect on HR, decrease BP
- Warfarin
  - Is an anti-coagulant commonly prescribed for patients with clotting risk; a fib presents significant risk, no effect on HR or BP
- Statins
  - Decrease cholesterol, Lipitor
- Nitrates
  - Increase HR, decrease BP and ischemic response and increase exercise tolerance
- Conversion Factors- MEMORIZE
  - 1L= 1,000mL
  - 1kg=2.2lb
  - 1mph=26.8m per min
  - 1 lb of fat= 3,500kcal
  - 1 MET =3.5 ml/kg/min
  - 1W=6kg per m per min
  - 1 LO2 per min= 5 kcal per min
  - 1in = 0.0254m= 2.54cm
  - Miles to km= 1.609
  - Ft to m= .3048
- Know emergency risk management- Appendix B
- Where the ECG leads go and what part of the heart they are viewing -Appendix C
- ACSMs Certification Review
  - I like this because it gave me questions similar to how the exam asks them and it was also a way to test myself.
  - Before the chapter review 100 question quiz there is a job task analysis sheet.
     There it tells you what chapters to focus on in the Resource Manual and Guidelines book.
  - Also gives you some examples of some EKGs to look at
- ACSMs Resource Manual for Guideline for Exercise Testing and Prescription
  - Yes, I know that 48 chapters is a lot, but I read it once and took detailed notes as
    I went through so I could go back through the important points and not have to
    read the whole book again.
  - I found that this book goes into more detail than the Guidelines book, so for me it helped explain concepts better so that I was understanding them and not just trying to memorize concepts.
- AACVPR book

- This book was similar to books stated above but it also had other information in patient assessment and ongoing support. This helped push my knowledge and understanding on how to better assess a patient and help the patient do at home work outs outside of rehab so they could continue to work out after they finish their rehab.
- Once again, I read the book once and took detailed notes to help get the important concepts down.
- Rapid Interpretation of EKG's Dubin
  - This book simplifies EKGs and gives several examples of one EKG. Also explains what is going on in the heart when a certain EKG appears.
  - Make sure to know a-fib, v-tach, left axis deviation, left ventricular hypertrophy, left and right bundle branch blocks, acute myocardial infarction, old MI, new or recent MI, ST-segment depression and elevation, T wave abnormalities and what they mean.
    - Know what each of these look like on and EKG and what to do if they appear during or before an exercise test. Also know what signs on the EKG mean these terms.
    - Leads II, III and aVF look at the inferior portion of the heart. Leads I, aVL, V5 and V6 look at the lateral portion of the heart. Leads V1-V4 look at the anterior portion of the heart.
      - Know that if you have inferior ST depression what is causing it and
        if you have depression in leads V1 and V2 where the ischemia is in
        the heart.
  - Know EKG paper is 25:1 ratio\*
- 12-Lead ECG by Garcia
  - This book goes into more detail than the rapid EKG book. It has examples of EKGs and explains how it got that interpretation and why that EKG is diagnosed that way. It explains how to find pathological Q waves, old and recent MIs. Also goes into more detail about the p waves, QRS complex, ST-segment and t waves. This book helped me better understand EKGs and recognize major irregular EKGs easier.
- Cardiopulmonary Book
  - Rate pressure product
  - Effects of CO, SV, HR, PCO during exercise
  - Ventilitory gas responses
- I also made note cards and quizzed myself on terms I was having trouble understanding.
- Lots of case studies
- Know the physiological changes during exercise

New ACSM-CEP Guide by Jack

What do you need to study for the test?

There are two text books that I used to study for it.

- 1. ACSM's Guidelines for Exercise Testing and Prescription 10<sup>th</sup> edition (GETP 10)
- 2. ACSM resource manual guidelines for exercise testing and prescription 7<sup>th</sup> edition
- 3. EKG textbooks (Dubin textbook (orange cover) and Garcia textbook from EKG graduate Course).

For GETP 10 did a nice job condense all materials that you need to know for CEP exam.

However, if you want to understand in detail (recommend), use resource manual for better understanding.

New ACSM-CEP exam consists of 125 questions. Need to receive score 550 or above to pass the exam.

What materials you need to know to pass the exam?

In GETP 10 read (must read),

Chapter 2: Exercise preparticipation health screening

Chapter 3: Pre-exercise Evaluation

Chapter 4: Health-Related Physical Fitness Testing and Interpretation

Chapter 5: Clinical Exercise Testing and Interpretation

Chapter 6: General Principles of Exercise Prescription

Chapter 7: Exercise Prescription for Healthy Population with Special

Considerations.

Chapter 8: Environmental Considerations for Exercise Prescription

Chapter 9: Exercise Prescription for Patients with Cardiac, Peripheral,

Cerebrovascular, and Pulmonary Disease

Chapter 10: Exercise Prescription for Individuals with Metabolic Disease and Cardiovascular Disease Risk Factors.

Chapter 11: Exercise Testing and Prescription for Populations with Other Chronic Diseases and Health Conditions

Chapter 12: Behavioral Theories and Strategies for Promoting Exercise.

Appendix A: Common medications

Appendix B: Emergency Risk Management

In ACSM resource manual (if you need more understanding) read,

Chapter 6: Pathophysiology and Treatment of Cardiovascular Disease

Chapter 7: Pathophysiology and Treatment of Pulmonary Disease

Chapter 8: Pathophysiology and Treatment of Metabolic Disease

Chapter 10: Legal Considerations for Exercise Programming

Chapter 38: Exercise Prescription for Patients with Cardiovascular Disease

Chapter 39: Exercise Prescription for Patients with Pulmonary Disease

Chapter 40: Exercise Prescription for Patients with Diabetes

Chapter 41: Exercise Prescription for Patients with Comorbidities and Other

## Chronic Diseases

Chapter 42: Exercise Prescription for Patients with Osteoporosis

Chapter 43: Exercise Prescription for Patients with Arthritis

In EKG textbook, you need to know

Arrhythmias (Dubin Orange textbook chapter 5)

Blocks (Dubin Orange textbook chapter 6)

Axis (Dubin Orange textbook chapter 7)

Hypertrophy (Dubin Orange textbook chapter 8)

Infarction (Dubin Orange textbook chapter 9)

EKG lead placement

Normal healthy 12 lead EKG

Transmural and Subendocardial MI EKG