

How to go about reading this study guide:

- Anything highlighted in yellow is what Dr. Kasper told us in class that we need to know for the exam! Most of the stuff he mentioned 2 to 4 times in class, so know it like the back of your hand.
- Everything else is from his power points and lecture
- Page references and table/box numbers are included if you are an overachiever and would like go into depth of each topic in the book.

What are the ways in which we assess or diagnose Coronary Artery Disease or Coronary Heart Disease?

- Risk factors
- Signs and symptoms
- Resting ECG
- Cardiac biomarkers
- Exercise ECG including in the ER (Table 3.6 pg. 54)
- Exercise nuclear imaging (perfusion, nuclear, thallium, cardiolite)
- Pharmacological (dobutamine, dipyridamole, adenosine)
- Echocardiography
- Electron beam computed tomography (CT Scan)
- Coronary Angiography
- Autopsy

Classification of Coronary Risk Factors **Be able to identify ones highlighted** (primary: great evidence for cause and effect, emerging: not enough evidence)

- **Primary Non-Modifiable**
 - o **Advancing age**
 - o **Male gender**
 - o **Family history**
- **Primary Modifiable**
 - o **Dyslipidemia**
 - o **Hypertension**
 - o **Tobacco smoking**
 - o **Diabetes (even Type I)**
 - o **Overweight**
 - o **Sedentary lifestyle**
 - o **Atherogenic diet**
- **Emerging Risk Factors—Lipids**
 - o Lipoprotein (A)
 - o Lipoprotein remnants
 - o Small LDL particles
 - o HDL subspecies
 - o Apolipoproteins B and A-1
 - o TC/HDL ratio
- **Emerging Risk Factors—Non Lipids**
 - o Homocysteine (amino acid-LDL, Clot)

- o Thrombogenic factors
- o Impaired glucose tolerance (beginning of Diabetes Meletus)
- o Metabolic syndrome
- o TC/HDL ratio

Framingham 10 Year Risk Assessment

- Predicts a person's chance of having a heart attack within the next 10 years
 - o This test is better than all other tests that could be performed other than Autopsy
 - o <http://cvdrisk.nhlbi.nih.gov/calculator.asp>

Kasper's definition of ischemia: demand of heart vs. oxygen supply to myocardial muscle of heart

Hard Coronary Heart Disease: heart attack or death

Coronary Heart Disease: Ischemia, etc.

Major Signs or Symptoms Suggestive of Cardiovascular, Pulmonary, or Metabolic Disease (Table 2.1 pg. 22) Know this table summarized below

- Angina: pain or discomfort caused by ischemia (ischemia is a lack of blood flow) usually occurs in the chest.
 - o *Stable angina*: highly reproducible at similar workloads, resolves with a reduction of workload.
 - o *Unstable angina*: can occur seated or at rest, usually due to coronary artery spasm.
 - o *Silent ischemia*: does not get better
- Shortness of breath: considered abnormal when it occurs at a level of exertion that is not expected to provoke shortness of breath. This is a principle symptom of cardiac and pulmonary disease.