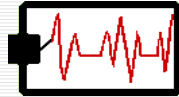


HTEC 91

Medical Office Diagnostic Tests



Introduction to course

- ☐ Introduction of instructors and TAs



Introduction to course

- ☐ Course Objectives
- ☐ What to Expect / Review of Greensheet
- ☐ Flow of the Class

Course Objectives

- ☐ Define common terms used in electrocardiography, physical therapy, radiology, and procedures.
- ☐ Differentiate the structure and electrical conduction of the heart.
- ☐ Measure and assess heart rhythms using an electrocardiograph.

Course Objectives

- ☐ Analyze normal and abnormal electrocardiograms.
- ☐ Compare the major modalities used in the office's physical therapy department.
- ☐ Examine the role of the health technology provider during X-ray examinations.

Course Objectives

- ☐ Compare the purposes and describe the patient preparation required for a barium meal, barium enema, cholecystogram, intravenous pyelogram.
- ☐ Differentiate the routine diagnostic procedures involved in the patient's diagnosis.

What to Expect

- Review of greensheet



What to Expect (continued)

- You must be enrolled in HTEC 101F (the lab portion).
- The first 2 weeks of both theory class and lab class are mandatory

Flow of each class period

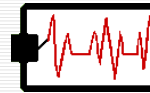
- Students submit assignments
- Theory presentation / discussion
- Small group activities
- Selected videos (ECG)



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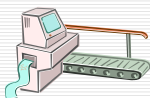
Basic ECG Interpretation

- ECG = electrocardiogram
- a graphic representation of the electrical activity of the heart



Electrocardiograph vs. Electrocardiogram

- **Electrocardiograph:** the machine that records the heart's electrical activity.
- **Electrocardiogram:** the record of electrical activity.

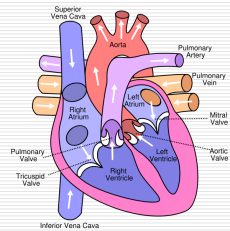


With the ECG, We Can...

- Monitor the amount of electrical activity.
- Monitor the time it takes for the electrical activity to travel through the heart.
- Detect abnormal conduction (dysrhythmias)
- Determine extent and damage from a myocardial infarction (MI).
- Assess the effect of certain medications.

*ECG usually used in conjunction with other cardiac tests

Structure of the Heart



□ http://en.wikipedia.org/wiki/Image:Diagram_of_the_human_heart_%28cropped%29.svg

Conduction System of the Heart

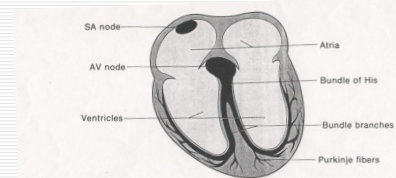
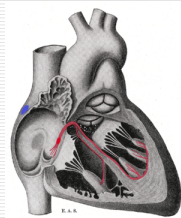


FIGURE 15-2. Diagram of the heart, identifying the structures involved with the conduction of an electrical impulse through the heart.

...another view



□ SA Node: blue; AV Node: red
 □ http://en.wikipedia.org/wiki/Cardiac_pacemaker