

Learning Goals and Outcomes for REACH-DL Physiology Exercises

HEART

General Goals and Outcomes per HAPS (<http://www.hapsweb.org>)

With respect to the electrocardiogram (EKG or ECG):

1. Identify the waveforms in a normal EKG.
2. Relate the EKG waveforms to the normal mechanical events of the cardiac cycle.
3. Relate the waveforms to atrial and ventricular depolarization and repolarization and to the activity of the conduction system.
4. Relate the EKG waveforms to the normal mechanical events of the cardiac cycle.
5. Relate the heart sounds to the events of the cardiac cycle.
6. Given the heart rate, calculate the length of one cardiac cycle.
7. Discuss the influence of positive and negative chronotropic agents on HR.

ECG – Rest and Exercise

Learning Goals:

1. Students will be able to successfully record a three-lead Electrocardiogram (ECG) and examine the relationship between the ECG and the peripheral circulation.
2. Students will be able to record and look at the effects of exercise on an ECG and pulse.
3. Students will continue to be successful at using the LabScribe software to move cursors, analyze data, record data to the Journal, and add functions to the Analysis window.

Outcomes: Students who have successfully completed this exercise will:

1. have recorded a recognizable ECG.
2. have been able to interpret an ECG, especially the individual P and T waves, and the QRS complex.
3. be able to calculate the heart rate of an individual from the recorded data.
4. feel comfortable transferring data to the Journal and interpreting that data to answer questions about their recordings.
5. have used the functions available in the Analysis window to determine values for arterial pulse amplitude and heart rate, and the amplitudes of various ECG waves.
6. have been able to examine and interpret the effects of exercise on ECG and pulse amplitudes and timing.