

Introduction to Electrocardiography

Curriculum Overview

Designed for:

- High school students
- Post-secondary students in health occupations courses
- Certified Nursing Assistant (CNA) training courses

Length:

The activities in this curriculum will last approximately 2 hours. With supplemental materials, this curriculum can be adapted to a longer block of time.

Goal:

To help participants learn about electrocardiograms (ECG), interpretation of ECGs, and common arrhythmias.

Synopsis:

This curriculum helps participants learn about electrocardiograms (ECG), interpretation of ECGs, and common arrhythmias. The lesson begins with a pre-quiz that students may complete before the content is presented. Educators will review different ECGs, lead placement, and common artifacts. The lesson uses a slide presentation and integrates the ECG simulator to learn the proper procedure for placing leads and interpreting results. A brief quiz is included for assessment.

Curriculum Components:

- Teacher's guide – Complete lesson, including detailed steps of activities, time and materials needed, student handouts and instructor information to teach the lesson
- Student workbooks
- Flashcards
- Assessment tools
- PowerPoint presentation slides

Learning Objectives:

- To assess students' knowledge of cardiac conduction
- To describe how an ECG works
- To identify different ECGs, lead placements including 3, 4, 5 and 12-leads, and common artifacts and their causes
- Demonstrate knowledge of lead placement and rhythm interpretation of atrial, ventricular and conduction block arrhythmias
- Identify parts of a waveform
- Explain characteristics of waves, intervals and segments
- Determine heart rate using three methods
- Recognize normal sinus rhythm, bradycardia, and tachycardia