



## Lesson Plan: High-Performance CPR

<b>Topic:</b>	High-Performance CPR (HP-CPR)
<b>Presenter:</b>	West Michigan Regional Medical Consortium CE Sponsor Program
<b>Location:</b>	West Michigan Regional Medical Consortium CE Sponsor Locations
<b>Credit Category:</b>	Special Considerations: Pediatric Medical
<b>License Level:</b>	MFR, EMT, EMT-S, EMT-P
<b>Credits:</b>	1
<b>Format:</b>	0.5-hour-lecture; 0.5-hour-practical. This training is to be conducted in conjunction with 2-hour AHA BLS Renewal Course (the credits and objectives listed below are in ADDITION to the BLS Renewal Course; separate credits are preapproved for BLS Renewal at 2 medical all levels with proof of completion certification).

**Objectives:** At the conclusion of this CE session, the participants will be able to:

### Cognitive

1. Define the prevalence of sudden cardiac arrest and identify current survival statistics and trends locally.
2. Define the proper rate of chest compressions and how this physiologically impacts patient survival.
3. Define the proper Depth of compressions and how this physiologically impacts patient survival.
4. Define Recoil in relation to chest compressions and how this physiologically impacts patient survival.
5. Defend the importance of minimizing Interruptions to chest compressions, as well as the minimal ideal chest compression fraction, and how this physiologically impacts patient survival.
6. Discuss techniques for proper ventilations during resuscitation, the importance of minimizing ventilation rate and volume, and how this physiologically impacts patient survival.
7. Reference local protocols relating to High-Performance CPR.

### Psychomotor

1. Given a pediatric arrest scenario, demonstrate proper compression rate, depth, recoil, chest compression fraction and ventilation rate/volume.
2. Given a pediatric arrest scenario, demonstrate good team dynamics, including assigned roles, closed loop communication, importance of team leader, and integration of BLS and ALS as part of a resuscitation team.
3. Given a pediatric arrest scenario, demonstrate a preplanned, choreographed and consistent integration of an automated compression device while achieving minimal compression interruptions.

### Affective

None

## Lesson Plan: High-Performance CPR

### Outline for Presentation:

1. Introductions
2. Scenario 1: Pediatric Arrest (10 min – measure CCF)
3. Presentation
  - a. Prevalence – Sudden Cardiac Arrest
  - b. Survival Statistics
  - c. Principles of High-Performance CPR (WHY)
    - i. EMR/EMT Owns CPR
    - ii. Minimize Interruptions
    - iii. Depth
    - iv. Rate
    - v. Recoil
    - vi. Ventilation Rate/Volume
    - vii. Rotate Compressors
    - viii. Hover Hands
    - ix. Advanced Skills with Ongoing CPR
    - x. Coordination and Teamwork
    - xi. Building Blocks: Recap
  - d. Local Protocols
4. BLS Renewal
  - a. 1-Rescuer Adult BLS
  - b. 2-Rescuer Child BLS
  - c. Team Dynamics
  - d. Infant BLS
  - e. Relief of Choking
5. Airway / Overdose
6. Advanced Airway
  - a. Review and practice iGel Supraglottic Airway Device
7. Automated Compression Devices
  - a. Review operational guidelines
  - b. Demonstrate consistent routine for incorporation of device with minimal interruptions
8. Scenario 2: Pediatric Arrest (10 min – measure CCF, compare)
9. Summary and Questions

**Student Evaluation Method:** No formal evaluation of participants will occur. However, students will be informally evaluated within teams, measuring chest compression fraction over a 10-minute simulated resuscitation at the beginning and end of the course, comparing before /after training results with a goal of 80 percent chest compression fraction.

**Evaluation of Presentation:** Continuing Education Program Sponsor Evaluation Form will be filled out by all participants.