

---

# **CPR/AED for the Professional Rescuer**

---

---

# Purpose

- ✓ **The purpose of the course is to teach those with a duty to act (professional rescuers) the skills needed to respond appropriately to breathing and cardiac emergencies including the use of automated external defibrillators (AEDs).**

---

# The Professional Rescuer and Breathing Emergencies

---

## Lesson 1

---

# Emergency Medical Services System

- ✓ What is the EMS system?
- ✓ The survival and recovery of critically injured or ill victims depends on—
  - Recognition and response by the lay responder.
  - Early activation of the EMS system.
  - Professional rescuer care.
  - Prehospital care provided by advanced medical personnel.
  - Hospital care.
  - Rehabilitation.

---

# Legal Considerations

- ✓ Duty to Act
- ✓ Scope of Practice
- ✓ Standard of Care
- ✓ Negligence
- ✓ Good Samaritan Laws
- ✓ Consent
- ✓ Refusal of Care
- ✓ Advanced Directives
- ✓ Battery
- ✓ Abandonment
- ✓ Confidentiality
- ✓ Documentation

---

# Standard Precautions

- ✓ What are Universal Precautions?
- ✓ What are standard precautions?
- ✓ The risk of getting a disease while providing CPR is extremely low, but practicing standard precautions reduces the risk even further.

---

# Steps in an Emergency

- ✓ What steps should you follow in an emergency?
- ✓ The Steps:
  - Size up the scene.
  - Perform an initial assessment.
  - Summon advanced medical personnel.

# Moving a Victim

- ✓ It is important not to move a victim unless it is necessary.
- ✓ What are some considerations when moving a victim?
- ✓ When should you move a victim?
- ✓ There are 6 ways to move a victim:
  - ❑ Clothes drag
  - ❑ Two-person seat carry
  - ❑ Walking assists
  - ❑ Pack-strap carry
  - ❑ Blanket drag
  - ❑ Foot drag



---

# Resuscitation Masks

- ✓ What is a resuscitation mask?
- ✓ Benefits of using a resuscitation mask:
  - ❑ The possibility of disease transmission is reduced.
  - ❑ A seal is created over both the victim's mouth and nose.
  - ❑ Air can be delivered to the victim more quickly through both the mouth and nose.
  - ❑ The device can be connected to emergency oxygen if it has an oxygen inlet, thus increasing the oxygen concentration the victim receives.
- ✓ Characteristics of a resuscitation mask

---

# Initial Assessment

- ✓ Purpose: To identify life-threatening conditions. Should take no more than 10 seconds
- ✓ Includes checking the victim for:
  - ❑ Consciousness
  - ❑ Signs of life (movement and breathing)
  - ❑ Pulse
  - ❑ Severe bleeding

# Breathing Emergencies

- ✓ What is a breathing emergency?
- ✓ Some reasons they occur:
  - ❑ Obstructed airway
  - ❑ Injury to head, chest, lungs or abdomen
  - ❑ Illness
  - ❑ Respiratory conditions
  - ❑ Heart attack
  - ❑ Coronary heart disease
  - ❑ Allergic reactions
  - ❑ Electrocutation
  - ❑ Shock
  - ❑ Drowning
  - ❑ Nonfatal submersion injury
  - ❑ Poisoning
  - ❑ Drugs
  - ❑ Emotional distress

---

# Respiratory Distress

- ✓ Signs and symptoms:
  - ❑ Slow or rapid breathing
  - ❑ Unusually deep or shallow breathing
  - ❑ Shortness of breath or noisy breathing
  - ❑ Dizziness, drowsiness or light-headedness
  - ❑ Changes in the level of consciousness
  - ❑ Increased heart rate
  - ❑ Chest pain or discomfort
  - ❑ Flushed, pale, ashen or bluish skin

# Respiratory Distress (cont.)

- ❑ Unusually moist or cool skin
- ❑ Gasping for breath
- ❑ Wheezing, gurgling or high-pitched noises
- ❑ Inability to speak in full sentences
- ❑ Tingling in hands, feet or lips
- ✓ What care should be given to a person in respiratory distress?
  - ✓ Keep them calm. Comfort them. Help control their breathing (use a paper bag). Be prepared to call 911 if their condition gets worse.

# Rescue Breathing

- ✓ Provide rescue breathing for a victim who has a pulse, but is not moving or breathing. To determine if a victim is not moving or breathing, perform an initial assessment.
- ✓ For an adult, give 1 rescue breath about every 5 seconds.
- ✓ For a child and infant, give 1 rescue breath about every 3 seconds.
- ✓ Each rescue breath should last about 1 second and make the chest clearly rise.
- ~~✓ Recheck ABCs every 2 minutes.~~

# Bag-Valve-Mask Resuscitator

- ✓ What is a BVM?
  - ✓ A BVM reduces the risk of disease transmission and increases the level of oxygen being delivered to a victim.
1. Rescuer 1 performs an initial assessment while Rescuer 2 assembles the BVM.
  2. Rescuer 1 seals the mask and opens the airway.
  3. Rescuer 2 begins ventilations.
  4. Look for movement and recheck for breathing and a pulse about every 2 minutes.

---

# Airway Obstruction

- ✓ What is an airway obstruction?
- ✓ Steps for a conscious choking victim:
  - ❑ Size up the scene and ask the victim, “Are you choking?”
  - ❑ Identify yourself and ask if you can help.
  - ❑ If the victim is coughing forcibly, tell him or her to continue coughing.
  - ❑ If the victim cannot speak, cough or breathe, have someone call advanced medical personnel. Begin 5 back blows and 5 abdominal thrusts for an adult or child or 5 back blows and 5 chest thrusts for an infant.



---

# Airway Obstruction

- ✓ Steps for an unconscious choking victim:
  - ❑ Size up the scene and approach the victim.
  - ❑ Look for movement, check for breathing and give 2 rescue breaths. If the rescue breaths do not make the chest clearly rise, reposition the airway and attempt the rescue breaths again.
  - ❑ If the rescue breaths still do not make the chest clearly rise, begin chest thrusts for an adult, child or infant.
  - ❑ Give 30 chest thrusts, look for a foreign object and then give 2 rescue breaths.

---

# Cardiac Emergencies and AED Skills

---

## Lesson 2

---

# The Cardiac Chain of Survival

1. Early recognition of the emergency and early access to EMS
2. Early cardiopulmonary resuscitation (CPR)
3. Early defibrillation
4. Early advanced medical care

---

# Signs and Symptoms of a Heart Attack

- ✓ Persistent chest discomfort, pain or pressure that lasts longer than 3 to 5 minutes, or goes away and comes back.
- ✓ Discomfort, pain or pressure in either arm, back or stomach.
- ✓ Chest discomfort, pain or pressure that spreads to the shoulder, neck, jaw or arms.
- ✓ Shortness of breath or trouble breathing.

---

# Signs and Symptoms of a Heart Attack (cont.)

- ✓ Nausea or vomiting.
- ✓ Dizziness, light-headedness, loss of consciousness or fainting.
- ✓ Pale, ashen, grayish or bluish skin.
- ✓ Sweating—face may be moist or person may be sweating profusely.
- ✓ Denial of signs or symptoms.

---

# Care for a Heart Attack

- ✓ Immediately summon advanced medical personnel.
- ✓ Have the victim stop what he or she is doing and rest.
- ✓ Loosen any tight or uncomfortable clothing.
- ✓ Closely monitor the victim until advanced medical personnel arrive.
- ✓ Notice any changes in the victim's appearance or behavior.
- ✓ Comfort the victim.

---

# Care for a Heart Attack (cont.)

- ✓ If medically appropriate and local protocols or medical direction
- ✓ permit, give aspirin if the victim can swallow and has no known contraindications.
- ✓ Assist the victim with his or her prescribed medication and give emergency oxygen, if it is available and you are trained to do so.
- ✓ Be prepared to give CPR or use an AED.

---

# Cardiac Arrest

- ✓ What is it and when does it occur?
- ✓ Signs and symptoms:
  - Unconsciousness
  - No movement or breathing
  - No pulse
- ✓ Care:
  - Early CPR
  - Early defibrillation



# CPR

- ✓ Combination of 30 chest compressions and 2 rescue breaths. Recheck ABCs every 2 minutes.
- ✓ Circulates blood containing oxygen to vital organs, increasing victim's chance of survival, until advanced medical personnel arrive.
- ✓ CPR increases the likelihood that successful defibrillation can be delivered to a victim of sudden cardiac arrest, especially if more than 4 minutes have elapsed since the victim's collapse.
- ✓ Must be performed on a firm, flat surface.

# Two-Rescuer CPR

- ✓ What is the job of the first rescuer?
  - ✓ Check scene and the victim. Perform a primary assessment.
- ✓ What is the job of the second rescuer?
  - ✓ Call 911 and position yourself to begin chest compressions
- ✓ For an adult, perform 30 chest compressions and 2 breaths. For a child and an infant, perform 15 chest compressions and 2 breaths. Recheck ABCs every 2 minutes.

---

# Introduction to AED

- ✓ Most cardiac arrests occur away from the hospital.
- ✓ Early CPR can help a cardiac arrest victim.
- ✓ An electrical shock (defibrillation) is needed to correct the problem. The sooner the shock is administered, the greater the victim's chance of survival.
- ✓ Early defibrillation is the third step in the Cardiac Chain of Survival.

---

# When the Heart Stops

- ✓ Disease or injury can disrupt the heart's electrical system.
- ✓ Defibrillation is intended to disrupt the abnormal activity of the heart.
- ✓ V-tach (heart is beating too fast) and V-fib (heart is quivering) are two of the most common treatable abnormal heart rhythms.
- ✓ Cardiac arrests can also occur in children.

---

# Using an AED

- ✓ Turn on the AED.
- ✓ Wipe the victim's chest dry.
- ✓ Attach the pads (use pediatric pads for children).
- ✓ Plug the connector into the AED, if necessary.
- ✓ Make sure no one, including you, is touching the victim.
- ✓ Push the “analyze” button if necessary.
- ✓ If a shock is advised, push the “shock” button.

---

**What precautions should you take  
when using an AED?**