POST-certified First Aid/CPR/AED Refresher Course # 21797

CPR/AED American Heart Association

CPR/AED is taught as a standalone 4 hour block of training, off cite at the Natividad Medical Center Training Facility.

I. CPR and AED for adults, children, and infants, following current AHA Guidelines and Training Material.

- A. Basic airway management
- B. Rescue breathing
 - 1. Mouth-to-Mouth
 - 2. Mouth-to-Mask
 - 3. Bag-valve-mask (BVM)
- C. Chest compressions and CPR/AED
 - 1. Basic AED operation
 - 2. Using the AED
 - 3. Troubleshooting and other considerations
- D. Single rescuer CPR/AED on adult, child and infant
- E. Two rescuer CPR/AED on adult, child and infant
- F. Recovery position

First Aid

First Aid is taught as a standalone 4-hour block of training.

- II. Legal issues
 - A. Authorized skills and liability limitations
- III. Safety protocols
- IV. Role of the public safety first aid provider
 - A. Scene safety
 - 1. Personal safety. "Don't be the next victim"
 - 2. Traffic control
 - 3. Downed utilities (PG&E)
 - 4. In/near water (Coast Guard, Harbor Patrol etc.)
 - 5. Dangerous bystanders (Gang fight, shooting, angry family, friends interfering)
 - B. Body substance isolation, including removing gloves
 - C. Integration with EMS personnel
 - 1. Mass casualty incidents
 - D. Mass Casualty Responsibilities
 - 1. Identify number of victims
 - 2. Mechanism of injury

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- 3. Resources / what is needed (number of ambulances, 4-wheel drive, Life Flight, extraction equipment, etc.)
- 4. Advise dispatch / responding units of ingress and egress route
- 5. Triage
- 6. Evacuation
- E. Minimum personal equipment and first aid kits

V. Recognizing Life Threatening Emergencies

- A. Understanding Goals of CPR
- B. Chain of Survival
 - 1. Early Access
 - 2. Early CPR
 - 3. Early Defibrillation
 - 4. Early Advanced Care
 - 5. Pediatric Chain of Survival
- C. Sudden cardiac arrest
- D. Heart Attack
- E. Stroke
- F. Choking
- VI. Management of foreign body airway obstruction on adults, children, and infants
 - A. Conscious patients
 - B. Unconscious patients
- VII. Recognition and identification of adult and pediatric patients for both medical and traumatic emergencies
 - C. Performing a primary assessment
 - D. Performing a secondary assessment
 - E. Obtaining a patient history
- VIII. Medical emergencies
 - F. Pain, severe pressure or discomfort in chest
 - G. Breathing difficulties, including asthma and COPD
 - H. Allergic reaction and anaphylaxis
 - 1. Assisted administration of epinephrine auto-injector
 - I. Altered mental status
 - J. Stroke
 - K. Diabetic emergencies
 - 1. Administration of oral glucose
 - G. Seizures
 - H. Alcohol and drug emergencies
 - 1. Assisted naloxone (NARCAN) administration and accessing EMS
 - I. Severe abdominal pain
 - J. Obstetrical emergencies
- IX. Burns
 - L. Identification and treatment

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- X. Facial injuries
 - M. Identification and treatment
- XI. Environmental emergencies
 - A. Heat emergencies
 - B. Cold emergencies
- XII. Bites and Stings
 - A. Insect Bites and stings
 - B. Animal and human bites
 - C. Assisted administration of epinephrine auto-injector and accessing EMS
- XIII. Poisoning
 - A. Ingested poisoning
 - B. Inhaled poisoning
 - C. Exposure to chemical, biological, radiological or nuclear (CBRN) substances
 - 1. Recognition of exposure
 - 2. Scene safety
 - D. Poison control system
- XIV. Orientation to EMS system, including
 - A. 9-1-1 Access
 - B. Interaction with EMS personnel
 - C. Identification of local EMS and trauma systems
- XV. Tactical and rescue first aid principles applied to violent circumstances
 - A. Principles of tactical casualty care
 - B. Determining treatment priorities
- XVI. Patient movement
 - A. Emergency movement of patients
 - B. Lifts and carries which may include: using soft litters and manual extraction including fore/aft, side-by-side, shoulder/belt
- XVII. Cal OSHA Regulation 5193
 - A. Workplace Bloodborne Pathogens-Introduction
 - B. Scope of training
 - C. Overview of training
 - 1. The contents of the OSHA Standard.
 - 2. Bloodborne diseases
 - 3. Preventing exposure
 - 4. PPE
 - 5. Procedures to follow if exposed, and
 - 6. Signs & labels associated with BBP
 - D. Definitions
 - 1. Bloodborne Pathogens (BBP) Bloodborne pathogens are disease causing organisms that are present in blood.

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- 2. Other Potentially Infectious Materials (OPIM) For the purposes of this training program includes any body fluid or unfixed tissue.
- E. The relative risk of exposure to BBP is relatively small; however, the effects of an exposure can lead to deadly consequences.
- F. Regulation is 29 CFR 1910.1030.
- G. This regulation was updated in 2001 to incorporate new regulations from the Needle Stick Safety and Prevention Act of 1999.
- H. The OSHA regulation defines BBP as disease causing microorganisms found in human blood, as well as human blood components and products.
- I. Your employer should have developed an Exposure Control Plan.
 - 1. A determination of each employee's potential exposure to BBP, based upon their job duties.
 - 2. Methods to limit or eliminate exposure and updates that reflect changes in technology that may further reduce or eliminate exposure.
 - 3. Procedures for investigation of exposure incidents.
 - 4. Documentation of the required annual update process
 - a. non-managerial employee participation in the development
 - b. updating of the Exposure Control Plan.
- J. Please see your training instructor if you would like to review a copy of the OSHA regulations/Exposure Control Plan.
- XVIII. Bloodborne Diseases 3 have been identified as causing the greatest threat.
 - A. HIV-AIDS-HIV is the virus that leads to AIDS.
 - 1. Estimated over 1 million individuals living with HIV/AIDS in the US with 1/4th of those being undiagnosed
 - 2. There is no cure or vaccine.
 - 3. Symptoms at the onset of the disease vary, but include:
 - a. rapid weight loss
 - b. dry cough
 - c. recurring fever or profuse night sweats
 - d. profound and unexplained fatigue
 - e. swollen lymph glands in the armpits, groin, or neck
 - f. diarrhea that lasts for more than one week
 - g. white spots or unusual blemishes on the tongue or in the mouth
 - h. Pneumonia
 - i. Memory loss, depression, and other neurological disorders
 - B. HBV -virus that can lead to fatal liver failure in about 25% of those infected.
 - 1. Common symptoms include:
 - a. Fatigue
 - b. Abdominal pain
 - c. Loss of appetite
 - d. Nausea or vomiting
 - e. Joint pain
 - f. Jaundice (yellowing of skin)
 - 2. There is no cure for Hepatitis B; however, a vaccine is available.

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- a. This 3 dose injection has proven to be very safe and about 95% effective at preventing the disease.
- b. At no cost, your employer should make this vaccination available to all employees who are at risk of infection.
- c. This vaccination should be given before any exposure,
- d. An "after the fact" vaccination is available, but may not always prevent the disease.
- C. HCV
 - 1. Hepatitis C is the leading cause for liver transplants and can lead to death in approximately 5% of cases.
 - 2. Over 3.5 million people in the US are infected.
 - 3. About 80% of those infected with HCV show not symptoms, but possible symptoms include those similar to HBV.
- 4. No vaccine currently exists for HCV. The is a cure for HCV which is 90% effective.
- D. These diseases usually do not show symptom immediately.
 - a. They may even lay dormant for several years.
 - b. These symptoms can be caused by other diseases as well.
 - c. The only way to determine if you are infected is to see your healthcare professional for testing.
- XIX. Preventing Exposure

Α.

- How exposure occurs
- 1. Needle sticks
- 2. Human bites
- 3. Skin abrasions or cuts that come in contact with potentially infectious material. Infectious materials can include:
 - a. Blood or blood products
 - b. Human tissue
 - c. Vaginal secretions
 - d. Any other bodily fluid with blood in it.
- B. Standard & Universal Precautions
- C. PPE

8.

- 1. Gloves
- 2. Mouth & Eye protection
- 3. Gowns
- 4. Aprons
- 5. Lab coats
- 6. Caps
- 7. Shoe covers
 - Resuscitation barriers (CPR Masks)
 - a. Who provides & maintains it
 - b. Disposable PPE should be properly discarded after use. Other forms of contaminated PPE may be reused after proper decontamination.
 - c. Your employer should provide free of charge any necessary PPE.
 - d. Please consult your supervisor for the location of PPE at your facility.

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- e. It is also important to remember that PPE has limitations. It must be properly worn, maintained, and should be discarded if damaged.
- D. Engineering & Work Practice Controls
 - 1. Hand washing: Providing Hand washing areas with proper antiseptic hand cleaner and paper towels.
 - 2. Biohazard Signs, Labels and containers should be used to properly identify contaminated waste.
 - 3. Contaminated laundry must be handled as little as possible, should be transported in appropriately labeled containers and must be properly laundered.
 - 4. Sharps: Use of safer needles and sharps disposal containers as required by the Needlestick Safety and Prevention Act.
 - 5. Limiting activity in areas with possible BBP Exposure. No eating, drinking, smoking, applying cosmetics, or handling contact lenses in potential exposure areas.
- XX. Procedure if exposed
 - A. An exposure incident is when blood or other potentially infectious materials make contact with:
 - 1. Eye
 - 2. Nouth
 - 3. Other-mucus membrane
 - 4. Non-intact skin or open skin
 - 5. Or by piercing the skin
 - B. Action steps
 - 1. Stop and limit exposure to yourself and others.
 - 2. Thoroughly and immediately wash any exposed area of skin with antiseptic soap and water. Flush eyes, nose or mouth with water.
 - 3. Report incident to your supervisor or management personnel.
 - 4. Properly cleanup the area Steps for cleanup include:
 - a. Contain spill using absorbent barriers.
 - b. Remove used absorbent materials
 - c. Disinfect the area with germicide or 10% bleach solution.
 - d. Dispose of contaminated materials into properly marked containers.
 - e. Discard or decontaminate PPE.
 - 5. Complete an incident report that describes the incident including the routes of exposure, and identity of the source individual (if known).
 - C. Your blood should be tested for diseases and the test results should be discussed with you.
 - D. Appropriate treatment options will also be recommended by a health care professional and your employer will be notified of certain information.
 - E. The source individual's blood may also be collected and tested if consent is received.
 - F. All associated expenses are to be paid by the employer
 - G. Employee has the right to complete confidentiality of all results and treatments.
 - H. You will have the opportunity to receive the HBV vaccination if you had

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previously declined it.

- XXI. BBP Conclusion
 - A. BBP are serious hazards to your health
 - B. Your risk of exposure can be greatly reduced by using the information presented in this program.
- XXII. Trauma emergencies
 - A. Soft tissue injuries and wounds
 - B. Amputations and impaled objects
 - C. Chest and abdominal injuries
 - 1. Review of basic treatment for chest wall injuries
 - 2. Application of chest seals
 - D. Head, neck or back injury
 - E. Spinal immobilization
 - F. Musculoskeletal trauma and splinting
 - G. Recognition of signs and symptoms of shock
 - 1. Basic treatment of shock
 - 2. Importance of maintaining normal body temperature
 - H. Internal bleeding

I. Control of external bleeding, including direct pressure, tourniquet, hemostatic dressings, chest seals and dressings

- 1. Training in the use of hemostatic dressing shall result in competency in the application of hemostatic dressing. Included in the training shall be the following topics and skills:
 - a. Review of basic methods of bleeding control to include but not be limited to direct pressure, pressure bandages, tourniquets, and hemostatic dressing and wound packing
 - b. EMSA-approved hemostatic dressings
- XVIII. Written, oral and/or demonstration assessment (in each topic area)