

144211

BASIC COURSE INSTRUCTOR UNIT GUIDE

34

FIRST AID AND CPR

July 1993

144211

U.S. Department of Justice
National Institute of Justice

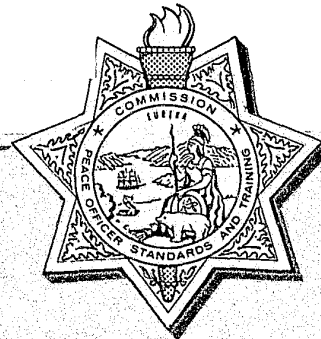
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THE COMMISSION
ON PEACE OFFICER STANDARDS AND TRAINING
STATE OF CALIFORNIA

This unit of instruction is designed as a *guideline* for performance objective-based law enforcement basic training. It is part of the POST Basic Course guidelines system developed by California law enforcement trainers and criminal justice educators for the California Commission on Peace Officer Standards and Training.

This guide is designed to assist the instructor in developing an appropriate lesson plan to cover the performance objectives which are required as minimum content of the Basic Course.

UNIT GUIDE 34

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PEACE OFFICER DUTIES AT THE SCENE OF A MEDICAL EMERGENCY

Given a word picture depicting a medical emergency, the student will select an appropriate course of action based on the following considerations:

- A. Providing for officer and public safety
- B. Taking enforcement action
- C. Requesting additional assistance (e.g., emergency medical services (EMS), fire services (HazMat), utility services)
- D. Assessing the injured victim's medical condition by performing a primary and secondary survey (i.e., airway, breathing, and circulation)
- E. Setting priorities for treating multiple victims

Performance Objective 8.45.4

CURRICULUM

- A. On-scene responsibilities of a peace officer
 - 1. Providing for officer and public safety
 - 2. Taking enforcement action
 - 3. Requesting additional assistance (e.g., emergency medical services (EMS), fire services (HazMat) and utility services)
 - 4. Assessing the injured victim's medical condition by performing a primary (i.e., airway, breathing, and circulation) and secondary survey
 - 5. Setting priorities for treating multiple victims
- B. Additional law enforcement duties
 - 1. Controlling the scene
 - 2. Preserving evidence
 - 3. Controlling any suspects (taking enforcement action)
 - 4. Identifying and isolating witnesses
- C. Legal aspects associated with the peace officer response to a medical emergency
 - 1. As a trained person you have a **SPECIAL RESPONSIBILITY** to provide the care needed within the scope of your training.
 - 2. You are protected from law suits **IF YOU ACT IN GOOD FAITH** and provide this standard of care to the best of your abilities, always within

the scope of your training.

3. If you do not provide this STANDARD OF CARE, however, you could be found NEGLIGENT and could be sued and potentially found legally liable.
4. An adult victim has the right to refuse treatment. If the victim is unconscious consent will be implied. If you determine that the injury is such that the victim's condition if left untreated will degenerate to a life threatening condition, then you have a responsibility to act under IMPLIED CONSENT regardless of the victim's conscious condition.
5. Once you have initiated treatment, you MUST remain with the victim until you are relieved by emergency personnel.

D. Scene response and evaluation

1. In route to the scene consider:
 - a. Multiple unit response (other vehicles also responding "Code 3")
 - b. Tunnel vision
 - c. Adrenalin reaction
2. First responsibility upon arrival will be scene evaluation and management. Considerations include but are not limited to the following:
 - a. Vehicle placement
 - b. Personal safety
 - c. Public safety
 - d. Victim safety
 - e. Environmental hazards
 - (1) Fire
 - (2) Gas/chemical leaks
 - (3) Hazardous materials
 - f. Urgent enforcement action (e.g., need to handcuff a wounded suspect)
3. Determine need for additional resources/support based on the following: (a) severity of the incident; and (b) presence of multiple victims.
 - a. Additional police units

- b. Mutual aid
 - c. Fire department
 - d. EMT/paramedic
4. Set priorities for treating multiple victims (Triage), if applicable.
- a. Identify and separate victims who are least injured
 - b. Identify the non-salvageable
 - c. Identify victims who are in need of immediate care
5. Assess the injured victim(s) medical condition by performing a primary and secondary survey.
- a. Primary victim survey
 - (1) Quick assessment of airway, breathing, circulation (ABC's)
 - (a) Primary survey should take about 45 seconds
 - (2) Check for responsiveness
 - (a) Tap the victim and attempt to get conscious response
 - (b) If the victim responds, check for bleeding
 - (c) If the victim is unconscious, check the ABC's
 - (3) Airway
 - (a) Ensure that the victim has an opened airway
 - (b) If not, use appropriate procedures to open the airway using head tilt, chin lift, or jaw thrust
 - (4) Breathing
 - (a) Check for breathing
 - (b) If victim is not breathing, begin rescue breathing
 - (5) Circulation
 - (a) Check for pulse
 - (b) If victim has no pulse, initiate CPR
 - (c) Control any life threatening bleeding

b. Secondary survey

- (1) Organized check of victim to determine any additional injuries that if left untreated could lead to a life threatening condition
 - (2) Generally a head-to-toe process and should take about two minutes to complete
 - (3) Look for medical alert identification
 - (4) Obtain any relevant medical history about the victim
6. Continue with additional enforcement action as needed.

CONSIDERATIONS FOR MOVING AN INJURED PERSON

Given a word picture depicting a medical emergency in which the injured victim may have to be moved, the student will identify if moving the victim is appropriate based upon the following principles:

- A. Never move an injured victim unless there is a life threatening situation
- B. If an injured victim must be moved and time permits, immobilize any injured parts (especially the spine) before moving

Performance Objective 8.45.5

CURRICULUM

- A. Moving a victim may be one of the most important decisions you will need to make at an emergency scene.
 - 1. As a general rule, DO NOT move an injured victim. More harm can be done through moving the victim than was done by the original injury especially when the spine is involved.
 - 2. Only move the victim if circumstances are life threatening. Treat all unconscious injured victims as though they have a spinal injury.
 - 3. Criteria for deciding to move an injured victim:
 - a. Imminent danger (e.g., from fire, water passing traffic, etc.) where the danger outweighs the risk of further injury through moving.
 - b. When you are unable to assess the condition of the victim or provide life saving procedures due to their position.
- B. If an injured victim must be moved, and time permits, immobilize any injured parts (especially the spine) before moving.

TECHNIQUES FOR MOVING AN INJURED PERSON

Given a direct question, the student will identify the following procedures for moving an injured victim that minimize the likelihood of further injury:

- A. Protect the victim from the forces of movement
- B. Stabilize fractures as much as possible
- C. Keep the victim's body in a straight line during movement
- D. Keep victim laying down
- E. Drag the victim from under the arms, supporting the head
- F. Keep the victim's head and shoulders close to the ground
- G. Move the victim only as far as necessary

Performance Objective 8.45.6

CURRICULUM

- A. How to move a victim from a life threatening situation
 - 1. Protect the victim from forces of movement.
 - 2. Stabilize/immobilize fractures as much as possible before the victim is moved.
 - 3. Keep the victim in as straight a line as possible during movement.
 - 4. Keep the victim laying down.
 - 5. Employ proper lifting/dragging techniques to avoid back strain (use own legs to pull and lift).
 - 6. Drag the victim from under the arms, supporting the head between own forearms or use an alternative method such as a clothes drag if necessary.
 - 7. Keep the head and shoulder close to the ground.
 - 8. Move only as far as necessary.

FIRST AID FOR OPEN WOUNDS

Given a word picture depicting a medical emergency involving an open wound (excluding the specific wounds covered under PO 8.45.9), the student will identify the appropriate first aid treatment according to the following principles for treating open wounds.

- A. Control the bleeding through the use of the following techniques:
 - 1. Direct pressure
 - 2. Elevation
 - 3. Pressure bandage
 - 4. Pressure points
- B. Expose the wound site
- C. Prevent contamination
- D. Treat for shock

Performance Objective 8.45.7

CURRICULUM

- A. Types of external bleeding
 - 1. Arterial bleeding
 - a. Arterial bleeding is the most serious type of external bleeding. Will require immediate attention and may prompt the need to also monitor breathing.
 - b. Characteristics of arterial bleeding
 - (1) Profuse
 - (2) Often spurting rhythmically as the heart beats
 - (3) Bright red
 - (4) Indicates that the heart is beating
 - c. Treatment for arterial bleeding
 - (1) Remember to put gloves on before approaching victim
 - (2) Apply direct pressure
 - (3) Apply pressure dressing
 - (4) Apply pressure pad at appropriate pressure point locations while elevating the injured area IF a fracture is not evident or suspected.

2. Venous bleeding

- a. Venous bleeding can be life threatening and may require immediate treatment.
- b. Characteristics of venous bleeding
 - (1) Does not spurt like arterial bleeding
 - (2) Rhythmic
 - (3) Can be profuse
 - (4) Steady flow of dark red blood

3. Capillary bleeding

- a. This is the least serious type of external bleeding and blood loss is comparatively low generally seen as hematoma or bruising.
- b. Characteristics of capillary bleeding
 - (1) Oozes rather than flows or spurts
 - (2) Dark red in color

B. Types of traumatic injuries (wound types)

1. Puncture wounds

- a. Puncture wounds are deep wounds by objects piercing the skin such as knives, arrows and nails.
- b. Bullet wounds are a type of puncture wound. In this case, the exit wound from the body maybe more serious than the entrance wound. Also, the damage caused by a bullet **INCREASES** as it passes through the body.
- c. Treating a puncture wound
 - (1) Remove or loosen any clothing covering the wound
 - (2) Control victim's bleeding (Consider entry and exit points)

2. Avulsion

- a. An avulsion is a partial or complete separation of a piece of tissue or skin from the body.
- b. Act quickly when treating an avulsion
- c. Treating an avulsion:

(1) Fold the separated tissue or skin onto the wound

(2) apply bandage or pressure to stop bleeding

3. Amputations

- a. An amputation is a complete detachment of an extremity.
- b. Locate and save any amputated part.
- c. Be certain the part is transported with the victim. It may be possible to reattach surgically if certain conditions exist.
- d. Amputated parts should be wrapped and transported with the victim.

C. Controlling external bleeding

1. Expose the wound site

- a. Prevent any further contamination of the wound but do not attempt to clean the wound before bandaging.

2. Bleeding control

- a. Place a clean dressing on the wound to help control bleeding with the use of direct pressure to the wound.
- b. If a clean dressing is not available, place gloved hand or whatever is on hand to control the bleeding.
- c. If a fracture is not suspected or evident, elevate the wound above the heart to help reduce the flow of bleeding.
- d. Continue to apply pressure to control bleeding

3. Applying a pressure bandage

- a. Place a bulky dressing on the wound.
- b. Be sure to anchor the starting end of the bandage to prevent unraveling.
- c. Twisting the bandage over the wound site will apply additional specific pressure to the wound.
- d. Secure the ends of the bandage over the wound to provide additional pressure.
- e. Check circulation by taking a pulse below the injury site or check circulation by capillary refill. If color returns immediately circulation is normal. If color of fingertip does not return after depressing fingertips or toes circulation is impaired.

4. Pressure points

- a. A pressure point is a specific place on the body where an artery is close to the body surface and is close to the bone.
- b. Applying pressure to the artery at such a point restricts the blood flow and help to control bleeding.
- c. The four pressure points to use on victims are:
 - (1) Brachial (2 locations)
 - (a) Pressure to the brachial points helps control bleeding in arm injuries.
 - (b) To find the brachial point place fingers below the biceps muscle.
 - (c) Press the pads of the fingers into the groove between the muscle and the bone.
 - (d) Maintain pressure until the bleeding is under control.
 - (2) Femoral (2 locations)
 - (a) Pressure to the femoral points helps control bleeding in leg injuries.
 - (b) To find the femoral pressure point place fingertips on the hip bone.
 - (c) Roll the heel of the hand into the crease between the torso and the leg.
 - (d) Apply strong pressure between the muscle and the bone.
 - (e) Maintain pressure until the bleeding is under control.
- d. It may not be possible to apply pressure points on all victims such as the obese for example. With these victims elevate the limbs to apply the pressure to restrict bleeding.

5. Tourniquets

- a. Application of a tourniquet must be looked upon as a LAST life saving method of bleeding control. Properly applied dressings and pressure should be used in ALL cases FIRST.
- b. How to apply a tourniquet
 - (1) Locate the site for the tourniquet. This should be between the wound and the victim's heart as close to the wound as possible.

- (2) Place a tourniquet pad over the artery. Remember that it does not have to be a commercial dressing. A clean handkerchief will do.
- (3) Place the band over, then around, the limb, drawing it tightly over the pad.
- (4) A commercial band is not required. A flat belt, necktie, stocking, similar banding device, at least 1/2" wide can be used. A stick or metal rod can be used to provide the twisting force necessary to tighten the tourniquet.
- (5) Tighten the tourniquet to the point where the bleeding is stopped. DO NOT tighten further.
- (6) Once the tourniquet is in place DO NOT LOOSEN IT.
- (7) Attach a note to the victim stating the time the tourniquet was applied. If no paper is available, indicate the time on the victim's forehead. This information is crucial.

D. Always treat for SHOCK

APPROPRIATENESS OF FIRST AID ACTIONS

Given a word picture depicting an officer providing first aid treatment, the student will identify if the treatment was appropriate based upon the following criteria:

- A. Maintain the victim's body temperature
- B. Position the victim correctly
 - 1. Positioning is normally in the prone position with the legs elevated unless one of the following contraindications exists:
 - (a) Suspected spinal injury or head injuries -- immobilize and leave in position found;
 - (b) Difficulty breathing -- place in position of comfort or semi-sitting position;
 - (c) Fractures of the lower extremities -- do not elevate legs; or
 - (d) Stroke -- if conscious, elevate head and shoulders.
- C. Reassure the victim
- D. Treat injuries as required

Performance Objective 8.45.8

CURRICULUM

- A. Maintain the victim's body temperature
- B. Position the victim correctly
 - 1. Positioning is normally in the prone position with the legs elevated approximately 6 to 8 inches, unless one of the following contraindications exists:
 - (a) Suspected spinal injury or head injuries -- immobilize and leave in position found;
 - (b) Difficulty breathing -- place in position of comfort or semi-sitting position;
 - (c) Fractures of the lower extremities -- do not elevate legs; or
 - (d) Stroke -- if conscious, elevate head and shoulders.
- C. Reassure the victim
- D. Treat injuries as required
 - 1. Internal Bleeding
 - (a) Consider the possibility the victim may be bleeding internally. Internal bleeding may be discovered during secondary survey and the victim should be treated for shock.
 - (b) Internal bleeding can be life threatening but is sometimes difficult to

detect. Indications of internal bleeding are a hard mass or discoloration and swelling.

(c) Treatment for internal bleeding

(1) Internal bleeding can only be stabilized, not controlled.

FIRST AID FOR SPECIFIC INJURIES

Given a word picture depicting a medical emergency involving one of the "specific" injuries listed below, the student will identify the appropriate first aid treatment.

- A. Eye (traumatic, thermal, chemical)
- B. Head and face
- C. Chest and abdomen
- D. Impaled objects

Performance Objective 8.45.9

CURRICULUM

A. Injuries to the eye

1. Treatment and types of eye injuries

a. Traumatic eye injury

- (1) This is the most common type of eye injury. When one eye is injured it tends to track the movement of the uninjured eye so it is necessary to cover both eyes.
- (2) Bandage both eyes loosely. This minimizes the movement of the injured eye.
- (3) If an object is impaled in the eye, place a protective device around the object to stabilize it before bandaging. DO NOT REMOVE impaled object.
- (4) Do not wash or apply pressure to the eye as this may cause further damage.

b. Chemical burns to the eye

- (1) Hold the eye wide open
- (2) Keep the injured eye lower than the uninjured eye
- (3) Use available water to flush the eye
- (4) Flush from the bridge of the nose to the outside of the face to keep the chemicals from getting into the other eye
- (5) Rinse until burning pain stops or for 15 to 30 minutes
- (6) If both eyes are affected, flush them both

(7) Bandage both eyes loosely after flushing

c. Thermal burns to the eye

(1) Heat burns to the eye most commonly affect eyelids

(2) Loosely bandage both eyes. DO NOT flush the injured eye or place anything in it including eye drops or medication

(3) Bandage both eyes using a moist dressing. If a moist dressing is not available, use a dry dressing

d. Remember that victims with eye injuries will need reassurance

B. Head and facial injuries

1. Head and facial injuries indicate a strong possibility of a spinal injury. Therefore, DO NOT move the victim's head or neck.

2. When treating a facial injury always check the airway. The airway may be blocked causing breathing to be impaired. Open the airway using the jaw thrust method.

3. After ensuring the airway has been opened, use proper procedures to control bleeding.

a. Apply controlled direct pressure

NOTE: Application of pressure will depend on the type and location of injury (e.g., direct pressure maybe inappropriate where a skull fracture is indicated).

b. Press lightly to avoid further injury

c. Dress any open wounds

4. Nose bleeds

a. Have the victim assume a seating position leaning slightly forward.

b. Have the victim pinch their nostrils. DO NOT pack the nostrils.

c. Maintain an open airway

d. If the victim is unconscious, place him or her so that the head is slightly elevated or place him/her on one side with head turned

5. Facial injuries

a. An object impaled in the cheek can obstruct the airway. If so, carefully remove the object.

NOTE: This is an exception to the practice of not removing impaled objects

b. If a victim has lost teeth, locate the teeth and keep them clean and moist. Transport them with the victim as it may be possible for a dentist to reinsert them.

δ. Head and skull injuries

a. Signs and symptoms:

- (1) Bleeding from the ears and/or nose
- (2) Presence of cerebrospinal fluid (CSF) in the nose and/or ears
- (3) Deformity of the head or skull, such as protrusions, depressions and swelling
- (4) Depressed level or total loss of consciousness
- (5) Discoloration around the eyes or the ears
- (6) Unequal size of the pupils
- (7) Abnormal breathing patterns
- (8) Agitated or confused state
- (9) Vomiting

b. Emergency treatment

- (1) Open an airway without moving the victim
- (2) Control bleeding without applying pressure to any head or skull deformity
- (3) Be alert for the presence of cerebrospinal fluid and if present, bandage loosely without restricting the flow
- (4) Monitor the level of consciousness
- (5) Treat the victim for shock and be prepared for vomiting
- (6) Remember the possibility of spinal injury

C. Chest and abdominal injuries

1. Closed abdominal wounds

a. A victim with a closed abdominal wound will have no external bleeding but may have internal bleeding which can be very severe.

- (1) Internal bleeding may be discovered during secondary survey and the victim must be treated for shock.
 - (2) Internal bleeding can be life threatening but is sometimes difficult to detect. Indications of internal bleeding are a hard mass or discoloration and swelling.
 - (3) Treatment for internal bleeding
 - (a) Internal bleeding can only be stabilized, not controlled
- b. Signs and symptoms of abdominal injury
- (1) Indications of blunt trauma
 - (2) Pain or cramping
 - (3) Victim protecting abdomen
 - (4) Victim laying still with legs drawn up
 - (5) Rapid shallow breathing and rapid pulse
 - (6) Rigid or tender abdomen with or without swelling
- c. Treatment for abdominal injury
- (1) Place the victim on his/her back with knees bent
 - (2) If lower back injuries are suspected, stabilize the victim in the position found
 - (3) Treat for shock
2. Open abdominal wounds
- a. Occurs when an object enters the body and causes bleeding
 - b. Place the victim on his/her back with his/her knees bent
 - c. If the victim shows any sign of injury to the pelvic bone or legs, DO NOT MOVE THEM.
 - d. Place an occlusive dressing over the wound. An occlusive is a dressing (usually plastic) used to create an air-tight seal or close an open wound of a body cavity.
 - e. Protruding organs
 - (1) If any organs are protruding from the wound, DO NOT TOUCH THEM.
 - (2) Place an occlusive dressing over the injury sight to maintain

moisture and warmth.

- (3) Secure all sides of the dressing
- (4) If available, place a thick pad dressing over the occlusive dressing to maintain additional warmth.

3. Chest injuries

a. Chest injuries are serious because of bleeding and a potential for a blocked airway

b. Types and treatments of chest injuries

(1) Flail chest wound

- (a) When the victim has a free floating section of rib or breast bone (when one or more ribs are broken in two or more places).
- (b) A flail chest often occurs in a vehicle accident when the victim suffers a severe impact against a fixed object such as a driver impacting a steering wheel.

(c) Signs of a flail chest

- 1) When one part of the chest is not moving in synchronization commonly known as paradoxical breathing.
- 2) Painful and shallow breathing

(d) Treatment for flail chest

- 1) Place the victim laying down on the injured side or secure a soft object like a coat over the injured area.
- 2) These techniques apply pressure to the injured area and will help the victim.

(2) Open chest injuries

(a) Many open chest injuries result in collapsed lungs. Air entering into the chest cavity impairs breathing and heart functions.

(b) Treatment for open chest injuries

- 1) To prevent air from entering the chest, apply an occlusive dressing as follows:
 - a) Seal the wound with a gloved hand

- b) Without removing your hand, place plastic over your hand on the wound site
- c) Remove your hand from under the plastic while maintaining the seal with your other hand
- d) Tape all but one corner of the plastic
- e) The untapped corner provides a flutter valve which allows any air into the chest cavity to escape
- f) Having applied the dressing, treat the victim for shock

D. Impaled objects

1. An impaled object is an object that is still imbedded in the wound.
2. Do not attempt to remove impaled objects
3. Impaled objects should be stabilized and left where they are as any movement of an impaled object could cause further damage or increased bleeding.

FIRST AID FOR BONE AND JOINT INJURIES

Given a word picture depicting a medical emergency involving an injury to bone, muscle, or joint, the student will identify the appropriate first aid treatment as described below.

- A. Expose injured area
- B. Control bleeding by applying a pressure bandage
- C. Immobilize the injury

Performance Objective 8.45.10

CURRICULUM

A. Bone and joint injuries

1. Fractures

a. A fracture is a complete or partial break of a bone

- (1) An OPEN FRACTURE is a broken bone which has an associated tear or opening in the skin above the break
- (2) A CLOSED FRACTURE is a broken bone with no piercing of the skin

b. Signs and symptoms of fractures

- (1) Part of a limb appears different in size or shape
- (2) Swelling or discoloration
- (3) Tenderness and pain

2. Dislocations

a. A dislocation occurs when a joint and surrounding muscles, tendons and ligaments, are pushed or pulled out of alignment

b. Signs and symptoms of dislocations

- (1) Deformity
- (2) Joint swelling
- (3) Constant pain
- (4) Increased pain on movement
- (5) Loss of movement

(6) "Frozen" joint

3. Sprain

a. A sprain is an injury to the joint where the ligaments and surrounding tissue are partially torn or severely stretched.

b. Signs and symptoms of sprains

(1) Swelling

(2) Discoloration

(3) Pain

4. Emergency treatment for bone and joint injuries

a. Fractures, dislocations and sprains are treated in the same way

b. Expose the injured area (loosen, remove or cut away clothing covering the injury before treating it)

c. Control any bleeding by applying a pressure bandage

d. Immobilize the injury

5. Treating multiple victims with fractures

a. Treat the victim with the most life threatening fracture first

b. A spinal fracture is the most life threatening

c. More lives will be saved if a MULTIPLE VICTIM ASSESSMENT is completed before starting treatment. The victim who needs treatment the most should be treated first.

B. Use of a splint

1. It is important to STABILIZE any victim with a traumatic injury. A SPLINT may be needed to IMMOBILIZE a DISLOCATION or a FRACTURE.

2. Preparation for applying a splint

a. Splinting a dislocation or a fracture keeps bone ends immobile while stabilizing the adjacent joints.

b. Splints may be made of either a SOFT or RIGID material

c. Tell the victim that you are going to apply a splint

d. Select the materials you will use for a splint. Many materials will

work, so look over the scene to find something you can use

e. If available, use a commercially manufactured splint

3. Applying a splint

a. Check the pulse downstream from the injury

b. Position the materials so that it won't block the circulation (or cover a wound).

c. Apply the splint and secure properly in place

d. Recheck circulation below the injury to ensure the blood flow is not restricted. Use the pulse or capillary refill method.

e. Never manipulate a fracture at or near a joint

MEDICAL EMERGENCIES WITH SYMPTOMS SIMILAR TO INTOXICATION

Given a word picture depicting a medical emergency in which a person is displaying symptoms similar to alcohol or drug intoxication or alcohol withdrawal syndrome, the student will identify whether there is a medical emergency and if there is an emergency, identify that the victim is suffering from a head injury or diabetic emergency

Performance Objective 8.45.11

CURRICULUM

- A. Determining the existence of a medical emergency
 - 1. Sources of information
 - a. The victim and victim's symptoms
 - b. Witnesses
 - c. Your own observations
 - 2. Other pertinent evidence
 - a. Evidence of medical problems
 - b. Possession of medical alert identification
 - c. Existence of injuries
 - d. Evidence of alcohol or drug use
- B. Symptoms of a head injury
 - 1. Bleeding from the ears and/or nose
 - 2. Presence of cerebrospinal fluid (CSF) in the nose and/or ears
 - 3. Deformity of the head or skull, such as protrusions, depressions and swelling
 - 4. Depressed level or total loss of consciousness
 - 5. Discoloration behind the eyes or around the ears
 - 6. Unequal size of the pupils
 - 7. Abnormal breathing patterns
 - 8. Agitated or confused state

9. Vomiting

10. the victim may be combative or appear intoxicated

C. Symptoms of diabetic emergency

1. A diabetic emergency is caused by an imbalance of insulin or sugar in the body.

- a. When the body has more sugar than insulin the diabetic may suffer a diabetic coma (hyperglycemia)
- b. When the body has more insulin than sugar the diabetic may suffer from insulin shock (hypoglycemia)
- c. Usually people with diabetes control this imbalance by eating a proper diet or taking medication such as insulin. If a diabetic has not eaten properly, or has not taken his/her medication an emergency can occur

2. Symptoms of diabetic coma (Slower Onset)

a. Before the victim goes into a diabetic coma he or she may exhibit the following:

- (1) Appear to be intoxicated or drunk and exhibit similar behavior
- (2) Dry mouth, intense thirst
- (3) Abdominal pain and vomiting
- (4) Restlessness and confusion
- (5) Decreased level of consciousness

b. During a coma the victim may exhibit:

- (1) Labored breathing
- (2) Weak, rapid pulse
- (3) Dry, red, warm skin
- (4) Sunken eyes
- (5) Sickly-sweet smelling breath

3. Symptoms of insulin shock (Rapid Onset)

a. Hostile or aggressive behavior

b. May exhibit signs similar to drunkenness or intoxication

- c. Dizziness and headache
- d. Fainting, convulsions and possible coma
- e. Rapid pulse
- f. Intense hunger
- g. Skin pale, cold and clammy; profuse perspiration
- h. Drooling

NOTE: Insulin shock is extremely dangerous. It can develop within minutes and if left untreated, can lead to permanent brain damage

D. Symptoms resembling those of drunkenness

1. Some of the symptoms of diabetic emergency are similar to those of drunkenness. The victim may display all or some of the following:
 - a. Appear to be intoxicated or drunk
 - b. An uncooperative behavior
 - c. Aggression
 - d. Combativeness
 - e. Appear dazed
 - f. Have impaired motor skills
 - g. Have a decreased level of consciousness

NOTE: It is important to investigate the possibility of a diabetic emergency in cases where such symptoms are evident. Remember that insulin shock can occur rapidly and qualifies as a true medical emergency. It is important to act quickly and decisively in order to determine whether you are seeing symptoms of a diabetic emergency so that you can respond accordingly.

FIRST AID FOR HEAD INJURIES AND DIABETIC EMERGENCIES

Given a word picture depicting a medical emergency in which a person is displaying either symptoms of a head injury or diabetic emergency, the student will identify the appropriate first aid treatment based on the following considerations:

- A. General considerations
 - 1. Check and monitor ABC's
 - 2. Provide reassurance
 - 3. Check for medical alert identification
- B. Special considerations
 - 1. Head injuries -- Consider spinal precautions/immobilization
 - 2. Diabetic emergency -- provide sugar, if conscious

Performance Objective 8.45.12

CURRICULUM

- A. First aid measures for head injuries
 - 1. Question the victim
 - 2. If the victim is unconscious, look for medical alert information
 - 3. Question people at the location asking for any information about a possible head injury
 - 4. Administer emergency care
 - a. Check and monitor ABC's
 - b. Maintain an open airway without moving the victim
 - c. Control bleeding without applying pressure to any head or skull deformity
 - d. Be alert for cerebrospinal fluid (CSF) and if present, bandage loosely without restricting the flow
 - e. Monitor the victim's level of consciousness
 - f. Treat the victim for shock and be prepared for vomiting
 - g. Remember that head and facial injuries may also indicate spinal injury so do not move the victim
- B. First aid measures for diabetic emergencies
 - 1. Question the victim

2. If the victim is unconscious, look for medical alert information
3. Question people at the location asking for indications of diabetic emergency
4. If it is determined that the victim is a diabetic, and may be experiencing insulin shock, summon emergency medical personnel immediately.
5. Administer emergency care
 - a. Check and monitor ABC's
 - b. Provide reassurance to the victim
 - c. For a conscious victim:
 - (1) Assist the victim to administer sugar in the form of granulated sugar dissolved in water or granules under the tongue, honey, a "lifesaver" or other candy placed under the tongue, or orange juice.
 - (2) Do not allow the victim to inject him/herself. They may do it incorrectly and cause more harm.
 - d. For an unconscious victim:
 - (1) Do not give anything by mouth
 - (2) Keep the victim at rest, continue to monitor the ABC's, turn the victim's head to the side or place the victim on his/her side. Arrange for transport of the victim to medical facility.

FIRST AID FOR SEIZURES

Given a word picture depicting a medical emergency involving a person who may be having a seizure, the student will identify the appropriate first aid treatment.

- A. During seizure
 - 1. Do not restrain but attempt to protect the head from injury
 - 2. Remove surrounding hazards
- B. After seizure
 - 1. Attempt to maintain an open airway
 - 2. Place victim on side or turn head to side
 - 3. Examine for injuries
 - 4. Reassure, keep area quiet, and monitor vital signs

Performance Objective 8.45.13

CURRICULUM

- A. Characteristics of a seizure
 - 1. Characterized by muscular rigidity and jerking of the body and limbs
 - 2. Can vary from being very noticeable to being very violent
 - 3. Can be caused by epilepsy, head injury, high fever, alcohol withdrawal and other conditions
- B. First aid treatment for seizures
 - 1. During seizure:
 - a. Do not restrain but attempt to protect the head from injury
 - b. Remove surrounding hazards
 - c. Do not put anything in the victim's mouth
 - 2. After seizure:
 - a. Attempt to maintain an open airway
 - b. Place the victim on their side or turn their head to the side if no spinal injury is suspected.
 - c. Examine for injuries
 - d. Reassure, keep area quiet, and monitor vital signs
 - e. Treat for shock

3. A major responsibility for assisting victims of seizures is to protect them from hurting themselves.

FIRST AID FOR STROKES

Given a word picture depicting a medical emergency involving a person who may be having a stroke, the student will identify the appropriate first aid treatment based on the following criteria:

- A. Attempt to maintain an open airway
- B. Request medical assistance
- C. Reassure victim
- D. Treat for shock
- E. Elevate head and shoulders if conscious
- F. Lay on paralyzed side if unconscious or semi-conscious
- G. Monitor ABC's

Performance Objective 8.45.14

CURRICULUM

- A. Stroke defined:
 - 1. A stroke occurs when blood flow to the brain is interrupted or a blood vessel in the brain ruptures and creates pressure on the brain tissue.
 - 2. A stroke is also known as a cerebrovascular accident (CVA)
- B. Signs and symptoms of stroke:
 - 1. Paralysis on one side of the body
 - 2. An altered level of consciousness
 - 3. Difficulty with speech, vision, breathing and swallowing
 - 4. Headache
 - 5. Confusion
 - 6. Convulsions
 - 7. Pupils may be unequal in size
- C. First aid treatment for stroke
 - 1. Attempt to maintain an open airway
 - 2. Request medical assistance
 - 3. Reassure victim
 - 4. Treat for shock

5. Elevate head and shoulders if conscious
6. Lay on paralyzed side if unconscious or semi-conscious
7. Monitor ABC's
8. Try to prevent the victim from hurting him/herself

FIRST AID FOR SUDDEN UNCONSCIOUSNESS

Given a word picture depicting a medical emergency involving the sudden unconsciousness of a person, the student will identify the appropriate first aid treatment as described below.

- A. Monitor ABC's
- B. Treat for shock

Performance Objective 8.45.15

CURRICULUM

- A. Fainting defined:
 - 1. Fainting is sudden unconsciousness caused by dilation of blood vessels resulting reduced flow of oxygenated blood to the brain.
 - 2. Fainting is a form of shock
- B. Possible causes of fainting
 - 1. Extreme fear or excitement
 - 2. Irregular heartbeat
 - 3. Physical stress
 - 4. Other medical problems
- C. First aid treatment for fainting
 - 1. Monitor ABC's
 - 2. Place victim in a position of comfort
 - 3. Treat for shock
 - 4. As with seizures and strokes a primary responsibility in a fainting incident is to protect the victim from hurting him/herself.

FIRST AID FOR CARDIAC AND RESPIRATORY EMERGENCIES

Given a word picture depicting a medical emergency in which the signs of cardiac or respiratory emergency are present, the student will identify the appropriate first aid treatment based on the following criteria:

- A. Place in position of comfort
- B. Monitor ABC's
- C. Allow person to take medications
- D. Keep victim calm and still

Performance Objective 8.45.16

CURRICULUM

A. Cardiac emergencies

1. Signs and symptoms of cardiac emergency

NOTE: Although some signs of cardiac emergency resemble the symptoms of other less dangerous conditions, assume a cardiac emergency exists and treat accordingly.

- a. Victim complains of radiating arm pain which can be confused with bursitis or heartburn
- b. The following should be considered as being symptoms of a cardiac emergency:
 - (1) Chest pain
 - (2) Radiating arm pain
 - (3) Profuse sweating
 - (4) Nausea
 - (5) Shortness of breath
- c. Many cardiac arrest victims will deny they are having one

2. First aid treatment for cardiac emergencies

- a. Place in position of comfort
- b. Monitor ABC's
- c. Allow victim to take prescribed medications and remind the victim to follow the doctor's instructions precisely

NOTE: Do not under any circumstances ADMINISTER any medication to a victim; you may ASSIST a victim in properly taking prescribed medications.

- d. Keep victim calm and still
- e. If hyperventilation is present, provide calm reassurance and have the victim follow another person's slower breathing pattern.
- f. Arrange for transportation

B. Respiratory emergencies

- 1. Any difficulty in breathing is a respiratory emergency
- 2. A respiratory emergency can be caused by emphysema, asthma, and other medical conditions such as hyperventilation.
- 3. Signs and symptoms of a respiratory emergency
 - a. Labored breathing (e.g., wheezing)
 - b. Rapid or slowed breathing
 - c. In advance stages: cyanosis (bluish nail beds or skin due to lack of oxygen)
- 4. First aid treatment for respiratory emergencies
 - a. Place the victim in a comfortable position
 - b. Monitor the ABC's
 - c. Allow victim to take prescribed medications
 - d. Keep the victim calm and still
 - e. If the victim is hyperventilating ask the victim to follow your breathing pattern. Ask the victim to breath slowing into a paper bag if available.

STANDARDS FOR CPR AND EMERGENCY CARDIAC CARE

Given a direct question or incomplete statement relating to the treatment of a cardiac or respiratory emergency, the student will identify the appropriate first aid treatment based on the basic life support standards and guidelines prescribed in the latest version of the "Standards and Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC)" as published in The Journal of the American Medical Association.

Performance Objective 8.45.17

CURRICULUM

A. Cardiac emergencies

1. Signs and symptoms of cardiac emergency

NOTE: Although some signs of cardiac emergency resemble the symptoms of other less dangerous conditions, assume a cardiac emergency exists and treat accordingly.

- a. Victim complains of radiating arm pain which can be confused with bursitis or heartburn
- b. The following should be considered as being symptoms of a cardiac emergency:
 - (1) Chest pain
 - (2) Radiating arm pain
 - (3) Profuse sweating
 - (4) Nausea
 - (5) Shortness of breath
- c. Many cardiac arrest victims will deny they are having one

2. First aid treatment for cardiac emergencies

- a. Place in position of comfort
- b. Monitor ABC's
- c. Allow victim to take prescribed medications and remind the victim to follow the doctor's instructions precisely.

NOTE: Do not under any circumstances ADMINISTER any medication to a victim; you may ASSIST a victim in properly taking

prescribed medications.

- d. Keep victim calm and still
- e. If hyperventilation is present, provide calm reassurance and have the victim follow another person's slower breathing pattern.
- f. Arrange for transportation

B. Respiratory emergencies

1. Any difficulty in breathing is a respiratory emergency
2. A respiratory emergency can be caused by emphysema, asthma, and other medical conditions such as hyperventilation.
3. Signs and symptoms of a respiratory emergency
 - a. Labored breathing (e.g., wheezing)
 - b. Rapid or slowed breathing
 - c. In advance stages: cyanosis (bluish nail beds or skin due to lack of oxygen)
4. First aid treatment for respiratory emergencies
 - a. Place the victim in a comfortable position
 - b. Monitor the ABC's
 - c. Allow victim to take prescribed medications
 - d. Keep the victim calm and still
 - e. If the victim is hyperventilating ask the victim to follow your breathing pattern. Ask the victim to breath slowing into a paper bag if available.

C. If the victim losses consciousness during a cardiac or respiratory emergency the rescuer should do the following:

1. Establish unresponsiveness:

Tap or gently shake the victim on the shoulder and attempt to verbally get them to respond.

2. Position the victim:

Use appropriate procedures to place the victim on their back on a hard surface if other injuries do not prevent their movement.

3. Establish an open airway
4. Check for breathing (observe for a minimum of three to five seconds)
5. If the victim is not breathing, deliver two full slow breaths
6. Check for pulse
 - a. On an adult or child victim the rescuer would check for a carotid pulse for five to ten seconds
 - b. On an infant victim the rescuer will check for a brachial pulse for five to ten seconds
 - c. If no pulse, initiate CPR
7. Locate the compression point
 - a. Begin by positioning yourself by victim's side with the knees pointed in toward the victim's side.
 - b. Use the index and middle fingers of your hand closest to the victim's waist to locate the lower margin of the victim's rib cage. This should be done on the side of the victim's chest closest to your knees.
 - c. Run your fingers along the victim's rib cage until you find the notch where the ribs meet the breast bone. This will be found in the lower center of the victim's chest.
 - d. Keep your middle finger at the notch where the ribs connect to the breast bone. Your index finger should be positioned next to your middle finger, so that it rests over the lower end of the sternum.
 - e. The heel of your hand closest to the victim's head is placed over the middle of the breast bone, with the thumb side of the hand touching the index finger you used to locate the point where the ribs joined the breast bone.
 - f. At this point the heel of your hand closest to the victim's head will be placed directly over the CPR compression site.
 - g. The procedure for locating the CPR compression site on an infant is somewhat different.
 - (1) The area of compression for infants is the lower third of the sternum. The landmarks for chest compression are as follows:
 - a) An imaginary line is envisioned between the nipples over the breast bone.
 - b) The index finger of the rescuers hand (the hand furthest

from the infant's head) is placed on the sternum at this line.

- c) The middle and ring finger are placed along side the index finger. The index finger is then lifted off the imaginary line. Compression are applied with these two fingers.
- d) The rescuers other hand is used to maintain the infant's head position.

8. External chest compressions

a. The correct procedure for providing external chest compressions includes:

- (1) With the victim properly positioned and the CPR compression site located, reposition the hand you used to locate the breast bone notch. This hand is now placed on top of the hand that is over the CPR compression site.
- (2) The heels of both hands should be parallel to one another, with the fingers of both hands pointing away from your body.
 - (a) For a typical child victim only one hand is utilized to provide compressions
 - (b) For a typical infant victim only two fingers are used to provide compressions
- (3) Your fingers can be extended or they may be interlaced but your fingers **MUST BE KEPT OFF THE VICTIM'S CHEST.**
- (4) Straighten your elbows and lock them. **DO NOT** bend your elbows when delivering or releasing compression.
- (5) Position your shoulders directly over your hands so that you will deliver all compressions straight down onto the CPR compression site. Keep both of your knees on the ground.
- (6) Compressions must be delivered straight down with the appropriate amount of force, at the correct rate and the correct ratio of ventilations to compressions.
 - (a) For a typical adult victim:
 - 1) Apply enough force to depress the sternum 1 1/2 to 2 inches
 - 2) Maintain a ratio of two breaths for every 15 compressions
 - 3) Compress at a rate of 80-100 compressions per

minute

- 4) Recheck the pulse after one minute of compressions

(b) For a typical child victim:

- 1) Apply enough force to depress the sternum 1 to 1 1/2 inches
- 2) Maintain a ratio of one breath for every 5 compressions.
- 3) Compress at a rate of 80 to 100 compressions per minute
- 4) Recheck the pulse after one minute of compressions

(c) For a typical infant victim

- 1) Apply enough force to depress the sternum 1/2 inch to 1 inch
- 2) Maintaining a ratio of one breath for every 5 compressions
- 3) Compress at a rate of at least 100 compressions per minute
- 4) Recheck the pulse after one minute of compressions

- (7) After compression, fully release the pressure on the victim's chest. This allows the victim's heart to refill. Do not bend your elbows in order to release pressure. Do not lift your hands off victim's chest. Lift up at your waist to return your shoulders to their original position. The release of pressure should take about the same amount of time as the time required for compression.

9. Discontinuing CPR

a. CPR should be discontinued when

- (1) The victim's breathing and circulation resumes
- (2) The rescuer is exhausted and unable to continue
- (3) The rescuer is relieved by emergency medical personnel

FIRST AID FOR ENVIRONMENTAL EMERGENCIES

Given a word picture depicting one of the "environmental emergencies" listed below, the student will identify the appropriate first aid treatment.

- A. Burns (chemical, thermal, electrical)
- B. Heat emergencies (cramps, exhaustion, stroke)
- C. Cold emergencies (Hypothermia/Frostbite)
- D. Poisoning (Ingested, inhaled, absorbed and injected)
- E. Stings/Bites (Anaphylactic shock)

Performance Objective 8.45.18

CURRICULUM

A. Burns

1. Types and causes of burns

- a. Thermal burns (caused by heat)
- b. Chemical burns (caused when substances such as acids or alkalis come in contact with the skin)
- c. Electrical burns (caused when the victim's body becomes a conduit for electricity)

2. Thermal burns

- a. Thermal burns are characterized according to the depth of the burn in the tissue.
- b. Degrees of burns

(1) FIRST DEGREE

- (a) Burns damage the outer layer of skin only
- (b) Skin turns red and becomes very painful
- (c) Sunburn is the most common example

(2) SECOND DEGREE

- (a) Burns are deeper than first degree
- (b) Second degree burns damage the dermis or lower layer of the skin

(c) They are characterized by blistered formation

(3) THIRD DEGREE

(a) Third degree burns are the most serious damaging the inner and outer layers of skin.

(b) Third degree burns are characterized by dry leathery and discolored skin.

c. First aid treatment for thermal burns

(1) Remove the victim from the source of heat

(2) Loosely cover the burned area

(a) For first and second degree burns (closed blisters) apply a moist clean dressing and bandage loosely

(b) For second and third degree burns (open blisters) apply a dry clean dressing and bandage loosely

(3) Monitor the ABC's

(4) Treat for shock

NOTE: Do not attempt to cool second degree burns (with open blisters) and third degree burns with water. Only first degree burns or second degree burns (with closed blisters) may be cooled with water.

3. Chemical burns

a. Chemical burns occur most frequently in industrial settings where people commonly encounter acids and alkalis

b. First aid treatment for chemical burns

(1) Remove excess chemical, saturated clothing or jewelry

NOTE: Dry chemicals should be brushed off before flooding. Sometimes combining dry chemicals with water can cause more damage.

(2) Flood the affected area with water for 15 to 30 minutes or until the pain has stopped

(3) After flooding is completed, cover the burned area with a clean dry dressing

4. Electrical burns

- a. Electrical burns occur when the victim's body becomes a conduit for electricity. The body because of what it is touching has completed an electrical circuit. REMEMBER if you touch the victim's body BEFORE electrical power is turned off, YOU will become part of the circuit.
- b. Treatment for electrical burns
 - (1) Turn the power off
 - (2) Begin the ABC's. If the victim's heart has stopped, begin CPR immediately
 - (3) Be aware that there may be extensive internal injuries and treat accordingly
 - (4) External injuries will include both the entrance wound, where the body came in contact with the electrical source, and the exit wound, where the current left the body. These may not be in the same location but will need to be treated as wounds.
- c. Special considerations for victim's in an automobile
 - (1) This typically occurs when a downed power line has fallen onto a car
 - (2) Tell the occupants to stay in the car and why they must remain still
 - (3) Wait until the utility company turns off the power
 - (4) Typically the tires are insulating the occupants from the current. DO NOT tell them to leave the car unless fire or other hazards necessitate immediate evacuation from the vehicle.

B. Heat emergencies

- 1. Types of heat illnesses
 - a. Heat cramps
 - b. Heat exhaustion
 - c. Heat stroke
- 2. Heat cramps
 - a. Heat cramps are characterized by:
 - (1) Painful muscle spasms usually in the legs or abdomen
 - (2) Dry red skin

- b. Emergency treatment for heat cramps
 - (1) Remove the victim from the source of the heat
 - (2) Get victim out of the sun
 - (3) Have the victim rest
 - (4) Provide fluids

3. Heat exhaustion

- a. Heat exhaustion is characterized by:
 - (1) Pale and clammy skin
 - (2) Profuse sweating
 - (3) Rapid pulse
- b. Emergency treatment for heat exhaustion
 - (1) Remove the victim from the source of the heat
 - (2) Get victim out of the sun
 - (3) Have the victim rest
 - (4) Provide fluids in small amounts

4. Heat stroke

- a. Heat stroke is characterized by:
 - (1) Red, hot and dry skin
 - (2) Rapid, irregular pulse
 - (3) Shallow breathing
 - (4) Sometimes unconsciousness

NOTE: Heat stroke is extremely serious and can be life threatening if left untreated

- b. Emergency treatment for heat stroke
 - (1) Cool the body immediately
 - (2) Loosen or remove clothing
 - (3) Apply wet towels

(4) Monitor ABC's

(5) DO NOT give fluids to an unconscious victim

C. Cold emergencies

1. Hypothermia

a. Characteristics and symptoms of hypothermia

(1) Cold exposure resulting in low body temperature

(2) Can range from mild to severe

(3) Cold skin

(4) Disorientation

(5) Drowsiness

(6) Slurred speech

(7) Shivering

(8) Sometimes a denial of problem

b. Emergency treatment for hypothermia

(1) remove any wet clothing

(2) Move the victim to a warm environment (e.g., use the patrol car with the heat turned up)

(3) Monitor ABC's

2. Frostbite

a. Characteristics and symptoms of frostbite

(1) Cold exposure resulting in freezing tissue

(2) White blotchy skin

(3) Possible numbness

b. Emergency treatment for frostbite

(1) Immobilize the frozen part

(2) Wrap in a dry, clean loose bandage

(3) DO NOT rub it

- (4) Allow the part to rewarm slowly

NOTE: DO NOT allow the part to refreeze after warming as this will cause extensive tissue damage.

- (5) As the part rewarms, it may be extremely painful

D. Poisoning

1. A poison is any substance that can cause toxic reactions to the body. Poisons may be:

- a. Ingested
- b. Inhaled
- c. Absorbed
- d. Injected

2. Ingested poison

- a. Characteristics and symptoms of ingested poisons

- (1) May cause sudden, unexplained severe illness and unconsciousness
- (2) May result in vomiting and abdominal cramping
- (3) You may notice burns around the mouth or a strong odor on the breath
- (4) The victim may have difficulty breathing

- b. Emergency actions

- (1) Monitor the victim's ABC's
- (2) Monitor the victim's level of consciousness
- (3) Attempt to identify the ingested substance
- (4) Contact the Poison Control Center for treatment advise

3. Inhaled/absorbed poisons

- a. Characteristics and symptoms of inhaled poisons

- (1) Dizziness and headache
- (2) May also manifest the symptoms of other types of poisons (e.g., unconsciousness)

- (3) Exposure to inhaled poisons can occur as a result of inhalation of household chemicals, particularly when they are combined.

b. Emergency actions

- (1) Remove the victim from the source of the poison

NOTE: DO NOT enter any environment where is danger to yourself. Call for emergency assistance and appropriate equipment

- (2) Monitor ABC's
- (3) Monitor victim's level of consciousness
- (4) Attempt to identify the inhaled substance
- (5) Contact the Poison Control Center for treatment advise

4. Injected poisons

a. Characteristics and symptoms of injected poisons

- (1) Can occur through deliberate or accidental puncture
- (2) Usually accompanied by red swelling at the site
- (3) Affected skin will appear red and swollen

b. Emergency treatment for injected poison

NOTE: Use care when handling hypodermic needles or other sharp objects which may be contaminated. Most accidental puncture wounds occur during recapping of needles or during the collection of evidence.

- (1) Attempt to identify the injected substance
- (2) Monitor the ABC's
- (3) Monitor the victim's level of consciousness
- (4) If applicable, brush off any dry poison taking care not to get any on yourself
- (5) Wash the affected area thoroughly
- (6) Contact the Poison Control Center for treatment advise

NOTE: Poisons may be taken into the body in various ways, either accidentally or deliberately. It is important to use extreme care when dealing with any contaminated object so as not to become accidentally poisoned yourself.

E. Stings

1. Characteristics of stings
 - a. Insect stings usually cause local swelling and pain
 - b. Most stings are not an emergency situation
2. Allergic reactions
 - a. Some people have allergic reactions to stings
 - b. Itching, burning, hives, swelling of the lips and tongue can occur
 - c. The victim can have difficulty in breathing or sometimes a complete respiratory failure
 - d. Left untreated, ANAPHYLAXIS (allergic reaction) CAN BECOME FATAL
3. Emergency treatment for stings
 - a. Monitor ABC's
 - b. Assist the victim in taking any prescribed medication for their condition if they have it
 - c. Place ice pack on the bite to slow the rate of absorption
 - d. Contact Poison Control Center for treatment advise

F. Bites

1. Characteristics and common types of bites
 - a. Bites can cause serious illness
 - b. Various types of bites require different treatment
 - c. Common types of bites include:
 - (1) Spider bites
 - (2) Snake bites
 - (3) Animal bites
 - (4) Human bites
2. Spider bites
 - a. Black widow and brown recluse spider bites can cause serious

illness

- b. Emergency treatment for spider bites
 - (1) Monitor ABC's
 - (2) Place ice on the bite to slow the rate of absorption
 - (3) Contact the poison control center for treatment advise

3. Snake bites

- a. Some snake bites can cause extremely serious illness
- b. Characteristics of snake bites
 - (1) Pain, redness and swelling at the site
 - (2) Tingling around the mouth
 - (3) Shortness of breath
 - (4) Bloody vomiting
 - (5) Shock
 - (6) Coma
- c. Emergency treatment for snake bites
 - (1) Lay the victim down
 - (2) Immobilize the part of the body with the bite
 - (3) Apply constricting bands on either side of bite
 - (4) Place an ice pack on the bite site to slow the rate of absorption
 - (5) Keep victim calm
 - (6) Provide reassurance
 - (7) Treat for shock
 - (8) Monitor ABC's
 - (9) Contact Poison Control Center for treatment advise

4. Animal bites

- a. Some animals may be rabid and it may be necessary to take steps to locate and confine the animal.

- b. Characteristics of animal bites:
 - (1) Pain, redness, swelling at site
 - (2) The bite may have caused more severe damage such as a laceration or avulsion of tissue
 - (3) Minor to severe bleeding may be present

- c. Emergency treatment for animal bites:
 - (1) Cover with a dry clean dressing
 - (2) Monitor ABC's
 - (3) Treat for shock
 - (4) Arrange for transportation to medical facility

5. Human bites:

- a. Characteristics of human bites
 - (1) Human bites are likely to cause severe infection unless properly treated
 - (2) Pain, redness, swelling at site
 - (3) The bite may have caused more severe damage such as a laceration or avulsion of tissue
 - (4) Minor to severe bleeding may be present

- c. Emergency treatment for human bites
 - (1) Cover with a dry clean dressing
 - (2) Monitor ABC's
 - (3) Treat for shock
 - (4) Arrange for transportation to medical facility

NOTE: Instructors may wish to address the fact that legal avenues exist by which AIDS/HIV testing can be required in human bite assaults per Health and Safety Code Section 199.20.

STAGES OF LABOR AND POST-DELIVERY TREATMENT

Given a word picture depicting a normal labor or childbirth, the student will identify an appropriate course of action in the following situations:

- A. First-stage labor
- B. Second- or third-stage labor
- C. Post-delivery care

Performance Objective 8:45.19

CURRICULUM

A. Three stages of labor

1. FIRST STAGE

- a. From the onset of regular contractions to the time when the cervix is fully dilated
- b. A woman can normally be safely transported during the first stage of labor

2. SECOND STAGE

- a. From the full dilation of the cervix to the delivery of the baby
- b. During the second stage of labor, preparations should be made to assist with delivery

3. THIRD STAGE

- a. From the delivery of the baby to the delivery of the placenta (afterbirth)
- b. During the third stage of labor post-delivery care should be provided

B. Post delivery treatment

- 1. Do not pull on, tie or cut the umbilical cord
- 2. The placenta and the rest of the cord will deliver within the next half hour
- 3. Wrap the placenta for transport with the mother
- 4. Childbirth will be accompanied by a loss of blood and other fluids
- 5. Place towels or pads at the vaginal opening to help reduce the bleeding

6. Close and elevate the mother's legs
7. Feel the mother's abdomen to find the uterus, which is the size of a grapefruit. Rub using circular motions to help reduce bleeding.
8. It is extremely important to keep the baby warm. Be aware of the fact that up to 70% of the baby's body heat can be lost through its head.

CHILDBIRTH EMERGENCIES

Given a word picture depicting a childbirth emergency, the student will identify an appropriate course of action in the following situations:

- A. Breech birth
- B. Limb presentation
- C. Prolapsed cord
- D. Multiple births
- E. Baby does not breath
- F. Premature baby
- G. Stillborn
- H. Excessive bleeding
- I. Amniotic sac over baby's head

Performance Objective 8.45.20

CURRICULUM

NOTE: It is extremely important for you to provide support and reassurance for the mother in any of the following emergencies

A. Types of childbirth emergencies

- 1. Breech birth
 - a. When the buttocks or both feet deliver first
 - b. Sometimes contractions will stop, leaving the baby's head stuck in the birth canal
 - c. Support the baby's body, Do not pull on the baby.
 - d. Establish an AIRWAY. Explain your actions to the mother. insert two fingers in a V-shape into the vagina on either side of the baby's nose. Maintain this airway until emergency medical personnel arrive.
- 2. Limb presentation
 - a. When one arm or leg is delivered first, preventing the continuance of the delivery process.
 - b. Assist the mother by placing her in the knee chest position. This will help slow the birthing process.
 - c. Arrange for immediate transportation
- 3. Prolapsed cord

- a. When the umbilical cord protrudes from the vagina before the baby is born
 - b. The cord can become constricted by the baby, cutting off the circulation.
 - c. Assist the mother by placing her in the knee chest position. This will help slow the birthing process.
4. Multiple births
- a. Ask the mother if she has been told to expect multiple births
 - b. Contractions will begin shortly after the first birth
 - c. Tie or clamp the cord of the first child before the second child is born
 - d. Follow the same procedures as for the first child
5. Baby does not breath
- a. Begin the ABC's
 - b. Open the infant's airway
 - c. Do not hyperextend the head and neck. This would close the airway
 - d. Check for a brachial pulse. This is found between the elbow and shoulder on the inside of the arm
 - e. If there IS a pulse, begin rescue breathing by providing one puff of air every three seconds
 - f. If you do NOT feel a pulse, you need to begin CPR
6. Premature baby
- a. When born before full term
 - b. If the baby appears small, assume the baby is premature
 - c. Premature babies are very frail
 - d. Treatment for the premature baby
 - (1) DO NOT wrap the baby tightly; breathing could be restricted
 - (2) Constantly monitor the ABC's
 - (3) Be sure the clear mucous from the nose and mouth

7. Stillborn

- a. May appear normal
- b. May have a soft head
- c. May be blistering
- d. May have a strong, unpleasant odor
- e. Treatment

(1) If you are NOT SURE whether the baby is dead, begin CPR

(2) If the baby is obviously dead, DO NOT begin CPR

(3) Your second most important consideration is to provide emotional support to the mother and other family members

8. Excessive bleeding

- a. Treat as an open wound
- b. Gently apply clean compresses

9. Amniotic sac over baby's head

- a. Pinch, twist, and tear the sac
- b. Be careful not to hurt the baby
- c. Continue with a normal delivery

EMERGENCY CHILDBIRTH

Given a word picture depicting a woman in labor, the student will determine whether to assist with the birth or arrange for immediate transportation based upon the following considerations:

- A. Woman's childbearing history
- B. If contractions are occurring less than two minutes apart
- C. If woman feels the urge to bear down as if experiencing a bowel movement
- D. If crowning is present
- E. If water has broken (i.e., the amniotic sac has broken releasing the amniotic fluid)

Performance Objective 8.45.21

CURRICULUM

- A. Assisting with Childbirth
 - 1. Transporting the mother to a hospital
 - a. The mother can be transported if she is in the first stage of labor.
 - b. You need to determine which stage she is in before deciding to transport
 - c. You need to determine the woman's childbearing history (birth may occur more quickly if the woman is having a second or subsequent child).
 - 2. Determining the stage of labor of the mother
 - a. Using extreme concern for modesty and sensitivity, check the mother to see if the baby's head is visible at the vaginal entrance.
 - b. While checking the mother, continue to talk to her.
 - c. Ask the mother if her doctor expects any complications and whether she is taking any medications or drugs.
 - 3. Signs that birth is imminent
 - a. If contractions are occurring less than two minutes apart
 - b. If crowning is present (crowning is when the baby's head is present at the vaginal opening.) Prepare to assist with the delivery. Do not transport the mother.
 - c. If the water has broken (i.e., the amniotic sac has broken releasing the amniotic fluid).

B. Delivering the Baby

1. Preparation for childbirth

- a. Provide support and reassurance to the mother
- b. Assure her as much privacy as possible
- c. Have someone stay at the mother's head to speak with her as you assist with the delivery

2. Procedures for delivery

- a. Support the head as the baby is delivered
- b. Apply gentle pressure so that the head isn't delivered in an explosive manner. This will help to prevent tearing of the vagina.
- c. As the head emerges, it will generally rotate to one side
- d. When the entire head is delivered, look and feel to see if the cord is around the baby's neck.
- e. If the cord IS around the neck, gently slip it over the shoulders so it doesn't choke the baby.
- f. If the cord is loose enough, you may slip it over the baby's head or shoulder.
- g. Continue supporting the head and body as the baby is delivered.

CAUTION: Get a firm grip on the baby; newborns are VERY

SLIPPERY

3. Taking care of the newborn

- a. Keep the baby's head low for draining
- b. The placenta and the rest of the cord will deliver within the next half hour
- c. Wrap the placenta for transport with the mother
- d. Childbirth will be accompanied by a loss of blood and other fluids
- e. Place towels or pads at the vaginal opening to help reduce the bleeding
- f. Close and elevate the mother's legs
- g. Feel the mother's abdomen to find the uterus, which is the size of a grapefruit. Rub using circular motions to help reduce bleeding

- h. Keep the baby warm by drying and wrapping in clean available materials

LEGAL PRINCIPLES OF EMERGENCY CARE

Given a word picture depicting the treatment provided by an officer to a sick or injured person, the student will identify whether the treatment was consistent with the following legal principles:

- A. Special responsibility and obligation
- B. Standard of care
- C. Actual or implied consent
- D. Abandonment of care

Performance Objective 8.45.22

CURRICULUM

A. Legal Aspects

1. As a trained person, you have a **SPECIAL RESPONSIBILITY** to provide the care needed within the scope of your training.
2. You are protected from lawsuits if you **ACT IN GOOD FAITH** and provide this standard of care to the best of your abilities, always within the scope of your training.
3. If you do not provide this **STANDARD OF CARE**, however, you could be found negligent and you could be sued.
4. Consent and implied consent
 - a. An adult victim has the right to refuse treatment.
 - b. If the victim is unconscious, consent will be **IMPLIED**.
 - c. If you determine that the injury is such that the victim's condition, if left untreated, will degenerate to a life threatening condition, then you have a responsibility to act under **IMPLIED CONSENT**, regardless of the victim's conscious condition.
 - d. Once you have initiated treatment, you **MUST** remain with the victim until you are relieved by emergency personnel.

EXERCISES

INFECTIOUS DISEASE CONTROL

Given a paper-and-pencil exercise, the student will list the following precautions that minimize the dangers associated with infectious diseases. At a minimum these will include:

- A. Use barrier protection (latex gloves and pocket masks)
- B. Treat all body fluids as if contaminated
- C. Wash hands and disinfect equipment after providing treatment

Performance Objective 8.45.3

CURRICULUM

NOTE: Detailed information concerning HIV/AIDS and communicable diseases are available from the AIDS Education for Emergency Workers Project in the resource trainers manual and from the Center for Disease Control (CDC) in Atlanta, Georgia.

- A. Overview of communicable diseases
 - 1. Medical aspects
 - a. The immune system: An overview
 - (1) Terminology
 - (a) Immune system
 - (b) virus
 - (c) bacteria
 - (d) HIV
 - (e) AIDS
 - b. Chain of transmission
 - (1) Reservoir (the infected person)
 - (2) Portal of exit
 - (3) Means of transmission
 - (4) Portal of entry
 - (5) Susceptible host
 - c. HIV mode transmission

- (1) Sexual intercourse (any means of body fluid exchange)
 - (2) Blood to blood
- d. Relevant terminology
- (1) Exposure (define)
 - (2) Infection (define)
 - (3) Antibody (define)
- e. Communicable diseases that public safety personnel are likely to encounter
- (1) Chicken pox
 - (2) Common cold/influenza
 - (3) Cytomegalovirus (CMV)
 - (4) Hepatitis
 - (a) Hepatitis A
 - (b) Hepatitis B
 - (c) Hepatitis C
 - (d) Hepatitis Delta
 - (5) Herpes Simplex
 - (6) HIV disease
 - (7) Impetigo
 - (8) Lice
 - (9) Lyme disease
 - (10) Malaria
 - (11) Measles/rubella
 - (12) Measles/rubeola
 - (13) Meningitis
 - (14) Mumps
 - (15) Pertussis

- (16) Rabies
- (17) Salmonellosis
- (18) Scabies
- (19) Syphilis
- (20) Tuberculosis

2. Safety aspects

a. Personal prevention measures

- (1) Balanced diet
- (2) Ample rest
- (3) Physical fitness
- (4) Maintenance of current immunizations and boosters
- (5) Stress reduction
- (6) Yearly physical examinations

b. Universal precautions

- (1) Use barrier protection (latex gloves and pocket masks)
- (2) Treat all body fluids as if contaminated
- (3) Wash hands and disinfect equipment after providing treatment
- (4) Use caution when handling sharp objects
- (5) Use mouth pieces or ventilation devices
- (6) Use precautions when open cuts or sores exist
- (7) Pregnant workers should take special heed to precautions

c. Protective equipment

- (1) Gloves
 - (a) Disposable (latex)
 - (b) Reusable (leather)

NOTE: Leather gloves will provide limited protection at best. Even if latex gloves are worn underneath, leather gloves will

not prevent contamination unless they are specially treated with certain waterproofing compounds.

(2) Ventilation devices

- (a) Pocket masks
- (b) Airway adjuncts

NOTE: Penal Code Sections 13518 and 13518.1 require law enforcement agencies to issue portable masks and airway assemblies to some peace officers, and to instruct the officers in the use of these masks.

(3) Eye and face protection

- (a) Protective eye wear
- (b) Face masks/shields

(4) Body protection

- (a) Aprons
- (b) Fluid proof/resistant clothing

(5) General supplies

- (a) Decontamination equipment
- (b) Cleaning solutions and disinfectants
- (c) Leak proof bags
- (d) Puncture resistant disposable containers (sharps containers, evidence containers)

d. Potential occupational risk activities

(1) Conducting searches

- (a) Person searches
- (b) Objects and places

(2) Defensive tactics

(3) Providing first aid/CPR

(4) Performing any other tasks that may lead to an exposure

e. Debriefing and reporting occupational exposure

f. Clean up and disposal

BANDAGING EXERCISE

Given an exercise, the student will bandage a simulated injury in accordance with the following principles:

- A. Use the cleanest material that is available
- B. Expose the injury site
- C. Cover the entire injury site
- D. Bandage snugly but without impairing circulation
- E. Leave victim's fingers and toes exposed
- F. Immobilize injury site as necessary

Performance Objective 8.45.23

CURRICULUM

A. Instructional methodology

1. Instructors using oral description, video segments, roleplays, simulations or other methods should describe an exercise involving a hypothetical wound which will require bandaging.
2. The exercise will include multiple situations which require students to bandage a simulated injury in accordance with the following principles:
 - a. Use of the cleanest material that is available
 - b. Exposure of the injury site
 - c. Coverage of the entire injury site
 - d. Application of the bandage snugly but without impairing circulation
 - e. Leaving the victim's fingers and toes exposed
 - f. Immobilization of the injury site as necessary

NOTE: At least one simulated injury must require immobilization.

B. Supplies/techniques for the exercise

1. Provide the student with a variety of bandaging and splinting materials, some appropriate and some not.
2. Use other students to play the role of injured persons.
3. With water-soluble ink, delineate the injured area on the role player's skin.

4. Replace the role player's clothes so that the injury is covered.
5. Describe the nature of the injury to the student and ask the student to treat it.

PRIMARY AND SECONDARY SURVEY EXERCISE

Given an exercise, the student will conduct a primary survey and a secondary survey.

- A. Primary survey
 - 1. Check for responsiveness
 - 2. Check airway
 - 3. Check for breathing
 - 4. Take carotid pulse
 - 5. Look for serious bleeding
- B. Secondary survey
 - 1. Gather information (i.e., complaints and special medical problems)
 - 2. Perform head-to-toe check for injuries
 - 3. Check pulse, respiration, skin color, and temperature

Performance Objective 8.45.24

CURRICULUM

- A. Instructional methodology
 - 1. Instructors using oral description, video segments, roleplays, simulations or other methods should describe/create an exercise situation requiring the student to perform a primary and secondary victim survey.

NOTE: It may be desirable to have a student play the role of a sick or injured persons. The student roleplayer should be provided with a script to follow during the primary and secondary survey.
 - 2. Students should be required to demonstrate a primary survey which will require the following actions:
 - a. Check for responsiveness
 - b. Check airway
 - c. Check for breathing
 - d. Take carotid pulse
 - e. Look for serious bleeding
 - 3. Students should also be required to demonstrate a secondary survey which will require the following actions:
 - a. Gather information (i.e., complaints and special medical problems)
 - b. Perform head-to-toe check for injuries

- c. Check pulse, respiration, skin color, and temperature
 - d. Victim's relevant medical history
4. Time limitations:
- a. Students should be required to perform the primary survey within 45 seconds.
 - b. Students should be required to perform the secondary survey within 2 minutes.

BLEEDING CONTROL EXERCISE

Given an exercise, the student will demonstrate the following first aid techniques for controlling bleeding:

- A. Direct pressure
- B. Elevation
- C. Pressure bandage
- D. Pressure points

Performance Objective 8.45.25

CURRICULUM

A. Instructional methodology

1. Instructors using oral description, video segments, roleplays, simulations or other methods should describe an exercise involving a hypothetical wound and its location to the student.
2. Students should be required to demonstrate the technique necessary to control the bleeding on a role player.
3. Students should be asked what to do if the first technique failed to control the bleeding.
4. The sequence should be repeated with different wounds at different sites on the body (e.g., upper extremity, lower extremity, head, and torso).
5. Wounds should be described which require the student to demonstrate each of the following four bleeding control techniques:
 - a. Direct pressure
 - b. Elevation
 - c. Pressure bandage
 - d. Pressure points

NOTE: The use of a tourniquet should be mentioned

OBSTRUCTED AIRWAY, RESCUE BREATHING AND CPR EXERCISE

Given an exercise, the student will demonstrate the use of the following basic life support (BLS) techniques:

- A. Clearing an obstructed airway on conscious and unconscious victims
 - 1. Adult or child
 - 2. Infant
 - 3. Obese or pregnant
- B. Rescue breathing
 - 1. Adult
 - 2. Child
 - 3. Infant
- C. Cardiopulmonary resuscitation
 - 1. Adult
 - 2. Child
 - 3. Infant

Treatment must be provided in accordance with the basic life support standards and guidelines prescribed in the latest version of the "Standards and Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC)," in The Journal of the American Medical Association

Performance Objective 8.45.26

CURRICULUM

- A. Introduction to Basic Life Support techniques (BLS)
 - 1. Terminology
 - a. "Cardio" refers to the heart.
 - b. "Pulmonary" refers to the lungs.
 - c. "Resuscitation" refers to the procedures whereby the rescuer attempts to externally restart these two processes to maintain the flow of oxygenated blood to the vital organs/brain of the victim. The process is referred to as CPR.
 - d. "Clinical Death" a victim is clinically dead the moment breathing stops and the heart stops beating.
 - e. "Biological Death" occurs if the victim is not receiving oxygen and the brain cells die. Brain cells will usually be damaged within four to six minutes of the stoppage of breathing. A victim is biologically dead when the brain cells die.
 - 2. Treatment must be provided in accordance with the basic life support

standards and guidelines prescribed in the latest version of the "Standards and Guidelines for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC)," in The Journal of the American Medical Association

3. Normal breathing
 - a. Look: for even rise and fall of the chest associated with breathing
 - b. Listen: for air entering and leaving the nose or mouth. The sounds should be those typically heard in breathing (no gurgling, gasping, or atypical sounds)
 - c. Feel: for air moving into and out of the nose or mouth
 - d. Observe: skin coloration. the skin should not be blue, gray or ashen
4. Abnormal breathing
 - a. No chest movements or uneven chest movements
 - b. No air can be heard or felt at the nose or mouth
 - c. Breathing is noisy
 - d. The rate of breathing is abnormally rapid or slow (Less than 8 respirations per minute or above 30 respirations per minute could be critical for an adult victim)
 - e. Breathing is very shallow or very deep and labored
 - f. The victim's skin is blue, grey or ashen (cyanosis)
5. Respiratory system anatomy
 - a. Nose - primary pathway
 - b. Mouth - secondary pathway
 - c. Throat - common passageway for food/air
 - d. Windpipe - The passageway for air flowing from the larynx. This is also called the trachea
 - e. Bronchial tree - The tubes that branch out from the windpipe and take air to the exchange levels of the lungs
 - f. Lungs - the elastic organs containing microscopic air sacs (alveoli). Where exchange of oxygen and carbon dioxide takes place with the bloodstream
 - g. Stoma - Tube placed in the trachea to allow breathing directly into

the lungs

B. Airway obstruction

1. Conscious

a. Adult and child

- (1) In normal situations use the Heimlich Maneuver.

The Heimlich maneuver is procedure where the rescuer wraps their arms around the victim's mid-abdominal area while standing behind the victim. The rescuer provides quick inward and upward thrusts in an attempt to dislodge an airway obstruction.

- (2) For obese, pregnant or other special conditions (i.e., a victim with recent abdominal surgery or trauma), use manual thrust-chest. To perform the manual thrust-chest the rescuer stands behind the victim and provides only quick inward thrusts to the center of the victim's chest.

- (3) On a conscious adult or child these techniques should be continued until the obstruction is cleared or the victim loses consciousness

b. Infant

- (1) Place the infant in a head low position. (i.e., placing the infant's head substantially lower than its body)

- (2) Give back blows and chest thrusts.

(a) The rescuer provides stable support to the infant's head and body, usually by laying the infant face down across the forearm

(b) The rescuer attempts to maintain an open airway by properly cradling the infant's head in their supporting hand

(c) The rescuer administers firm back blows between the infant's shoulder blades with the heel of the other hand.

(d) The rescuer administers chest thrusts by turning the infant over and applying downward pressure on the chest just below the infant's nipple line.

NOTE: Before a compression is attempted the rescuer needs to feel the infant's chest area to make sure the compressing fingers are not directly atop or below the xiphoid process. It is important for the rescuer to be aware

of the location of the infant's xiphoid process in order to avoid injury caused by compression in the wrong location.

- (e) These procedures should be continued until the airway is cleared or until the rescuer is relieved by emergency medical personnel

2. Unconscious

a. Adult and child victim

(1) Attempt to establish an airway

(a) Head tilt chin lift method:

This is the most common means of opening the airway of an unconscious victim. This technique rotates the head backward at the neck area lifting the tongue away from the air passage. This method of opening the airway should not be used if a neck or spinal injury is suspected.

NOTE: When doing a head tilt chin lift on children or infants it is possible to over extend the head and neck and actually re-close the airway. This situation is called hyperextension and must be avoided.

(b) Jaw thrust method:

In the jaw thrust method the head is held in place while the lower jaw is lifted forward to open the airway. This is the means of opening the airway of a victim with a suspected spinal or neck injury.

(2) Attempt air exchange

- (a) If no air exchange occurs, attempt to re-establish an airway and re-attempt an air exchange.

(3) Administer abdominal thrusts

- (a) With the victim on their back, the rescuer straddles the victim's lower legs. The rescuer then locates the position of the naval with one hand and places the other hand directly above it. This is the location where the force of compression will be applied.

The rescuer then compresses inward and upward 5 times.

(4) Check for an obvious obstruction (e.g., a piece of meat or a foreign object)

- (a) For adult victims do a finger sweep through the mouth in

an effort to clear the obstruction

(b) For child victims DO NOT insert fingers into the mouth unless the obstruction is clearly visible

(5) Attempt an air exchange again

(6) If still unable to establish a clear airway, continue with above obstructed airway procedures until arrival of emergency medical services personnel

b. Infant victim

(1) Establish a neutral plus position

(2) Assess the infant's breathing difficulties to make certain the problem is due to an airway obstruction

(3) Place the infant in a head low position, give back blows and chest thrusts

(a) Give 5 back blows followed by 5 chest thrusts

(b) DO NOT insert fingers into the mouth unless the obstruction is clearly visible

(4) Attempt an air exchange

(5) If still unable to establish a clear airway, continue with above obstructed airway procedures until arrival of emergency medical services personnel

c. Pocket mask

(1) Penal Code Sections 13518 and 13518.1 require law enforcement agencies to issue portable masks and airway assemblies to some peace officers, and to instruct the officers in the use of these masks.

(2) As a matter of routine, peace officers should carry a pocket mask with them when responding to a medical emergency.

(3) Not having the pocket mask available does not absolve a peace officer from the obligation to provide rescue breathing.

C. Rescue breathing

1. Techniques for rescue breathing

a. Mouth to mouth resuscitation:

Placing of your mouth over the mouth of the victim in a tight seal

and closing off the victim's nose to provide a pathway for air from you to the victim.

NOTE: Whenever possible utilize a pocket mask to administer rescue breathing.

b. Mouth to nose resuscitation:

In circumstances such as a facial injury when the mouth cannot be used, mouth to nose will serve as an adequate pathway

c. Mouth to mouth-and-nose resuscitation:

In circumstances involving an infant or very petite person where a seal can be made between the rescuers mouth and the mouth-and-nose area of the victim

d. Mouth to stoma resuscitation:

In rare cases a victim may have a plastic device installed in the throat area which provides a direct airway to the lungs. Rescue breathing can only be performed by obtaining a seal over this device with your mouth or a pocket mask for ventilation. Mouth to mouth or mouth to nose will not work with a stoma breather because there is no connection between the mouth/nose to the trachea

2. Ventilation rates for rescue breathing

- a. Adult and child - The rescuer gives two slow breaths 1 1/2 to 2 seconds apart followed by 10 to 12 breaths per minute
- b. Infant - The rescuer gives two slow breaths 1 to 1 1/2 seconds apart followed by 20 breaths per minute

D. Cardiopulmonary resuscitation (CPR)

1. Establish unresponsiveness:

Gently shake the victim on the shoulder and attempt to verbally get them to respond

2. Position the victim:

Use appropriate procedures to place the victim on their back on a hard surface if other injuries do not prevent their movement

3. Establish an open airway

4. Check for breathing (observe for a minimum of three to five seconds)

5. Deliver two full slow breaths
6. Check for pulse
 - a. On an adult or child victim the rescuer would check for a carotid pulse for five to ten seconds
 - b. On an infant victim the rescuer will check for a brachial pulse for five to ten seconds
 - c. If no pulse initiate CPR
7. Locating the compression point
 - a. Begin by positioning yourself by victim's side with the knees pointed in toward the victim's side
 - b. Use the index and middle fingers of your hand closest to the victim's waist to locate the lower margin of the victim's rib cage. This should be done on the side of the victim's chest closest to your knees.
 - c. Run your fingers along the victim's rib cage until you find the notch where the ribs meet the breast bone. This will be found in the lower center of the victim's chest.
 - d. Keep your middle finger at the notch where the ribs connect to the breast bone. Your index finger should be positioned next to your middle finger, so that it rests over the lower end of the sternum.
 - e. The heel of your hand closest to the victim's head is placed over the middle of the breast bone, with the thumb side of the hand touching the index finger you used to locate the point where the ribs joined the breast bone.
 - f. At this point the heel of your hand closest to the victim's head will be placed directly over the CPR compression site.
 - g. The procedure for locating the CPR compression site on an infant is somewhat different.
 - (1) The area of compression for infants is the lower third of the sternum. The landmarks for chest compression are as follows:
 - a. An imaginary line is envisioned between the nipples over the breast bone
 - b. The index finger of the rescuers hand (the hand furthest from the infant's head) is placed on the sternum at this line
 - c. The middle and ring finger are placed along side the index finger. The index finger is then lifted off the imaginary line.

Compression are applied with these two fingers

- d. The rescuers other hand is used to maintain the infant's head position

8. External chest compressions

- a. The correct procedure for providing external chest compressions includes:

- (1) With the victim properly positioned and the CPR compression site located, reposition the hand you used to locate the breast bone notch. This hand is now placed on top of the hand that is over the CPR compression site.
- (2) The heels of both hands should be parallel to one another, with the fingers of both hands pointing away from your body.
 - (a) For a typical child victim only one hand is utilized to provide compressions
 - (b) For a typical infant victim only two fingers are used to provide compressions
- (3) Your fingers can be extended or they may be interlaced but your fingers **MUST BE KEPT OFF THE VICTIM'S CHEST.**
- (4) Straighten your elbows and lock them. **DO NOT** bend your elbows when delivering or releasing compression.
- (5) Position your shoulders directly over your hands so that you will deliver all compressions straight down onto the CPR compression site. Keep both of your knees on the ground.
- (6) Compressions must be delivered straight down with the appropriate amount of force, at the correct rate and the correct ratio of ventilations to compressions.
 - (a) For a typical adult victim:
 - 1) Apply enough force to depress the sternum 1 1/2 to 2 inches
 - 2) Maintain a ratio of two breaths for every 15 compressions
 - 3) Compress at a rate of 80-100 compressions per minute
 - 4) Recheck the pulse after one minute of compressions
 - (b) For a typical child victim:

- 1) Apply enough force to depress the sternum 1 to 1 1/2 inches
- 2) Maintain a ratio of one breath for every 5 compressions.
- 3) Compress at a rate of 80 to 100 compressions per minute
- 4) Recheck the pulse after one minute of compressions

(c) For a typical infant victim

- 1) Apply enough force to depress the sternum 1/2 inch to 1 inch
- 2) Maintaining a ratio of one breath for every 5 compressions
- 3) Compress at a rate of at least 100 compressions per minute
- 4) Recheck the pulse after one minute of compressions

- (7) After compression, fully release the pressure on the victim's chest. This allows the victim's heart to refill. Do not bend your elbows in order to release pressure. Do not lift your hands off victim's chest. Lift up at your waist to return your shoulders to their original position. The release of pressure should take about the same amount of time as the time required for compression.

INSTRUCTIONAL NOTE: It should be emphasized to students that they should never practice CPR compressions on any person. This is an extreme emergency care procedure that can cause serious problems when applied to an individual with normal heart and lung actions.

9. Discontinuing CPR

a. CPR should be discontinued when

- (1) The victim's breathing and circulation resumes
- (2) The rescuer is exhausted and unable to continue
- (3) The rescuer is relieved by emergency medical personnel

DEFINING THE EMS SYSTEM

Given a paper-and-pencil exercise, the student will define the emergency medical services (EMS) systems as "the system of resources that guide a person from the onset of illness or injury through care in a medical facility."

Performance Objective 8.45.27

CURRICULUM

A. The Emergency Medical Services System and the peace officer role in EMS

1. The EMS System defined:

"The Emergency Medical Services system (EMS) is the system of resources that guide a person from the onset of illness or injury through care in a medical facility"

2. EMS Personnel

- a. The EMS Dispatcher is trained to gather information about accidents, injuries and illnesses, and alert the appropriate services.
- b. The First to Respond (most often you, the peace officer) is trained to assess the emergency, determine the need for additional resources and to provide immediate treatment to victims.
- c. The EMT (Emergency Medical Technician) is certified to perform certain medical procedures during emergency situations. the EMT-P (Paramedic) is certified to provide advanced life support procedures.
- d. The Emergency Department (of a medical facility) communicates with EMT-Ps in the field, receives victims and information from EMTs, and both provide care needed to stabilize the victim's condition.

3. The EMS system components

- a. EMS is the Emergency Medical Services System.
- b. The role of the EMS is to assist people who are sick and injured in an emergency situation.
- c. When 911 is dialed the EMS dispatchers take in information and call the resources appropriate for the particular situation.
- d. Peace officer involvement with EMS occurs as:

- (1) Peace officers are often the first EMS personnel on the scene
 - (2) Peace officers serves as provides of immediate care and treatment while waiting for emergency medical personnel.
- e. Actions upon the arrival of emergency medical personnel:
- (1) The emergency medical technicians (EMTs) give whatever treatment is necessary and transport the victim to a medical facility.
 - (2) The emergency team at the medical facility take over the care of the victim.
4. Primary responsibilities of the peace officer at the scene of a medical emergency
- a. Evaluating the situation
 - b. Ensuring personal safety, public safety and victim safety
 - c. Requesting additional resources, if needed
 - d. Assessing the victims
 - e. Providing basic care for victims
5. Additional responsibilities of peace officers at medical emergency scenes
- a. Controlling the scene
 - b. Preserving evidence
 - c. Controlling any suspects

FIRST AID FOR SHOCK

Given a paper-and-pencil exercise, the student will answer the following questions relating to shock and its treatment:

- A. Under what circumstances should a sick or injured person be treated for shock?
- B. What are the possible consequences of failing to treat for shock?
- C. Are there circumstances under which the consequences of shock may be more dangerous than the injury that caused it?

Performance Objective 8.45.28

CURRICULUM

- A. General description of shock
 1. A victim goes into shock when the circulatory system is unable to carry life-giving oxygen and nutrients to the body's vital parts.
 2. Shock is a life-threatening condition and if the victim is not properly treated, they may die. Shock should be addressed in all medical emergencies.
- B. Conditions which may cause shock:
 1. In the following situations if a victim is left unattended conditions may worsen and death may occur:
 - a. Allergic reactions
 - b. Traumatic injuries
 - c. Severe blood loss
 - d. Heart conditions
 - e. Stress and fear
- C. Consequences of shock
 1. Shock if untreated can lead to death
 2. A minor injury untreated such as a dislocated finger can cause a victim to go into irreversible shock causing death.
- D. Initiating treatment for shock
 1. Consider all victims as potential shock cases and treat them accordingly.

2. Reassure victims and treat their wounds
3. Lie victim in position of comfort
4. Legs elevated if injuries permit
5. Maintain victim's body temperature

SUPPORTING MATERIAL

AND

REFERENCES

This section is set up as reference information for use by training institutions. These materials can be used for instruction, remediation, additional reading, viewing, or for planning local blocks of instruction. This list is not an endorsement of any author, publisher, producer, or presentation. Each training institution should establish its own list of reference materials.

TOPICAL LIST OF SUPPORTING MATERIALS AND
REFERENCES INCLUDED IN THIS SECTION

None included

ADDITIONAL REFERENCES

None