

## **Post 6**

**2013**

### **First Aid Skills**

#### **Problem #1**

You and your co-worker are the bolter operators on the 3 North section. While moving into the #3 entry you find the utility man has been injured in a roof fall. After securing the scene for safety, you find the utility man has a possible spinal injury, is not breathing and does not have a pulse. Perform two sets of two-person CPR. After two sets of two-person CPR your victim has a pulse but is not breathing. Each perform one set of AV. After each performing a set of AV the victim is breathing and has a pulse.

## INITIAL ASSESSMENT

PROCEDURES		CRITICAL SKILL
1. SCENE SIZE UP	<input checked="" type="checkbox"/> <input type="checkbox"/>	*A. Observe area to ensure safety *B. Call for help
2. MECHANISM OF INJURY	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Determine causes of injury, if possible *B. Triage: Immediate, Delayed, Minor or Deceased. *C. Ask patient (if conscious) what happened
3. INITIAL ASSESSMENT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Verbalize general impression of the patient(s) *B. Determine responsiveness/level of consciousness (AVPU) Alert, Verbal, Painful, Unresponsive *C. Determine chief complaint/apparent life threat
4. ASSESS AIRWAY AND BREATHING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Correctly execute head-tilt/ chin-lift or jaw thrust maneuver, depending on the presence of cervical spine (neck) injuries B. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds) C. If present, treat sucking chest wound
5. ASSESS FOR CIRCULATION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Check for presence of a carotid pulse. (5-10 seconds) B. If present, control life threatening bleeding C. Start treatment for all other life threatening injuries/conditions (reference Rule 2).

# PATIENT ASSESSMENT

PROCEDURES			CRITICAL SKILL
1. HEAD	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		*A. Check head for DOTS: Deformities, Open wounds, Tenderness and Swelling *B. Check and touch the scalp *C. Check the face *D. Check the ears for bleeding or clear fluids *E. Check the eyes for any discoloration, unequal pupils, reaction to light, foreign objects and bleeding *F. Check the nose for any bleeding or drainage *G. Check the mouth for loose or broken teeth, foreign objects, swelling or injury of tongue, unusual breath odor and discoloration
2. NECK	<input type="checkbox"/> <input type="checkbox"/>		*A. Check the neck for DOTS *B. Inspect for medical ID
3. CHEST	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		*A. Check chest area for DOTS *B. Feel chest for equal breathing movement on both sides *C. Feel chest for inward movement in the rib areas during inhalations
4. ABDOMEN	<input type="checkbox"/>		*A. Check abdomen (stomach) for DOTS
5. PELVIS	<input type="checkbox"/> <input type="checkbox"/>		*A. Check pelvis for DOTS *B. Inspect pelvis for injury by touch (Visually inspect and verbally state inspection of crotch and buttocks areas)
6. LEGS	L <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Check each leg for DOTS B. Inspect legs for injury by touch C. Unresponsive: Check legs for paralysis (pinch inner side of leg on calf) *D. Responsive: Check legs for motion; places hand on bottom of each foot and states "Can you push against my hand?" *E. Check for medical ID bracelet
7. ARMS	L <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Check each arm for DOTS B. Inspect arms for injury by touch C. Unresponsive: Check arms for paralysis (pinch inner side of wrist) *D. Responsive: Check arms for motion (in a conscious patient; team places fingers in each hand of patient and states "Can you squeeze my fingers?" *E. Check for medical ID bracelet
8. BACK SURFACES	<input type="checkbox"/>		*A. Check back for DOTS

**TWO-RESCUER CPR (WITH SPINAL INJURY - MANIKIN ONLY)**

PROCEDURES	CRITICAL SKILL
1. RESCUER 1 - ESTABLISH UNRESPONSIVENESS	<input type="checkbox"/> A. Tap or gently shake shoulders <input type="checkbox"/> *B. "Are you OK?" <input type="checkbox"/> C. Determine unconsciousness without compromising cervical spine (neck) injury <input type="checkbox"/> *D. "Call for help" <input type="checkbox"/> *E. "Get AED if available" (Note: If AED is used, follow local protocol)
2. RESCUER 1 - MONITOR PATIENT FOR BREATHING	<input type="checkbox"/> A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
3. RESCUER 1 - CHECK FOR CAROTID PULSE	<input type="checkbox"/> A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck <input type="checkbox"/> B. Check for presence of carotid pulse for 5 to 10 second <input type="checkbox"/> *C. Absence of pulse
4. RESCUER 1 - POSITION FOR COMPRESSIONS	<input type="checkbox"/> A. Locate the compression point on the breastbone between the nipples <input type="checkbox"/> B. Place the heel of one hand on sternum the compression point and the other hand on top of the first so hands are parallel <input type="checkbox"/> C. Do not rest fingers on the chest Keep heel of your hand on chest during and between compressions
5. RESCUER 1 - DELIVER CARDIAC COMPRESSION	<input type="checkbox"/> A. Give 30 compressions <input type="checkbox"/> B. Compressions are at the rate of at least 100 per minute (30 compressions delivered within 18 seconds) <input type="checkbox"/> C. Down stroke for compression must be on or through compression line <input type="checkbox"/> D. Return to baseline on upstroke of compression
6. RESCUER 2 - ESTABLISH AIRWAY	<input type="checkbox"/> A. Kneel at the patient's head <input type="checkbox"/> B. Correctly execute jaw thrust maneuver

7. RESCUER 2 - VENTILATIONS BETWEEN COMPRESSIONS	<input type="checkbox"/>   <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Rescuer 1 should place the barrier device (pocket mask/Shield with one way valve) on manikin (OPTION 1: When spinal injury is present, Rescuer No. 2 can hold barrier device on manikin after Rescuer No. 1 correctly places device over the mouth and nose (OPTION 2: Rescuer 1 can place the device on the manikin each time patient is ventilated</p> <p>B. Rescuer 2 Gives 2 breaths 1 second each</p> <p>C. Each breath - minimum of .8 (through .7 liter line on new manikins)</p> <p>D. Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)</p>
8. CONTINUE CPR FOR TIME STATED IN PROBLEM	<input type="checkbox"/>        <input type="checkbox"/>	<p>A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths</p> <p>B. To check pulse, stop chest compressions for no more than 10 seconds after the first set of CPR</p> <p>C. Rescuer at patient's head maintains airway and checks for adequate breathing or coughing</p> <p>D. The rescuer giving compressions shall feel for a carotid pulse</p> <p>E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation after each set</p> <p>F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle</p>
9. CHANGING RESCUERS	<input type="checkbox"/>	<p>A. Change of rescuers shall be made in 5 seconds or less and will be completed as outlined in problem. Team must switch every 5 cycles in less than 5 seconds.</p>
10. CHECK FOR RETURN OF PULSE	<input type="checkbox"/>  <input type="checkbox"/>	<p>A. A final pulse check will be required at the end of the last set of CPR (within 10 seconds)</p> <p>*B. "Patient has a pulse."</p>

## MOUTH-TO-MASK RESUSCITATION

PROCEDURES	CRITICAL SKILL
1. ESTABLISH UNRESPONSIVENESS	<input type="checkbox"/> A. Tap or gently shake shoulders <input type="checkbox"/> *B. "Are you OK?" <input type="checkbox"/> C. Determine unconsciousness without compromising C-spine injury <input type="checkbox"/> *D. "Call for help" <input type="checkbox"/> *E. "Get AED if available" (Note: If AED is used, follow local protocol)
2. MONITOR PATIENT FOR BREATHING	<input type="checkbox"/> A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
3. CHECK FOR CAROTID PULSE	<input type="checkbox"/> A. Correctly locate the carotid pulse (on the side of the rescuer) <input type="checkbox"/> B. Check for presence of carotid pulse within 10 seconds <input type="checkbox"/> *C. Presence of pulse
4. ESTABLISH AIRWAY	<input type="checkbox"/> A. Correctly execute head tilt / chin lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries
5. VENTILATE PATIENT	<input type="checkbox"/> A. Place barrier device (pocket mask/shield with one-way valve on manikin) <input type="checkbox"/> B. Ventilate patient 10 to 12 times per minute. Each ventilation will be provided at a minimum of .8 (through .7 liter line on new manikins)
6. CHECK FOR RETURN OF BREATHING AND PULSE	<input type="checkbox"/> A. After providing the required number of breaths (outlined in problem), check for return of breathing and carotid pulse within 10 seconds <input type="checkbox"/> *B. "Patient is breathing and has a pulse"

# **Post 6**

**2013**

## **First Aid**

### **Problem #2**

You and your partner are on the first aid team and have been called to the 3-North longwall section where an accident has occurred at the end of the track. Two men were loading a longwall shield when it came off the car and injured the two men. The scene is safe. One man is conscious, sitting against the rib. The second man is lying on the ground on his back, conscious, has a pulse and is breathing. Treat and prepare for transportation.

**POST # 6  
FIRST AID  
PROBLEM # 2  
LIST OF INJURIES**

- 4 INCH OPEN WOUND ON LEFT SIDE OF HEAD
- COMPOUND FRACTURE OF THE RIGHT HUMERUS
- BROKEN LEFT RADIUS
- 4 AMPUTATED FINGERS RIGHT HAND
- 3 INCH OPEN WOUND ON THE LEFT THIGH
- FRACTURED TIBIA, RIGHT LEG
- 2 INCH OPEN WOUND ON FRONT OF LEFT ANKLE

**\* props are to be utilized during the working of the problem, such props must be readily available to the working teams and in working condition.**

**4 small wooden dowels rods  
1 recording manikin  
1 additional wooden dowel rod  
1 by stander/ patient**



**Patient # 2**

**4 inch open wound on left side of head**

**Compound fracture of the Right Humerus**

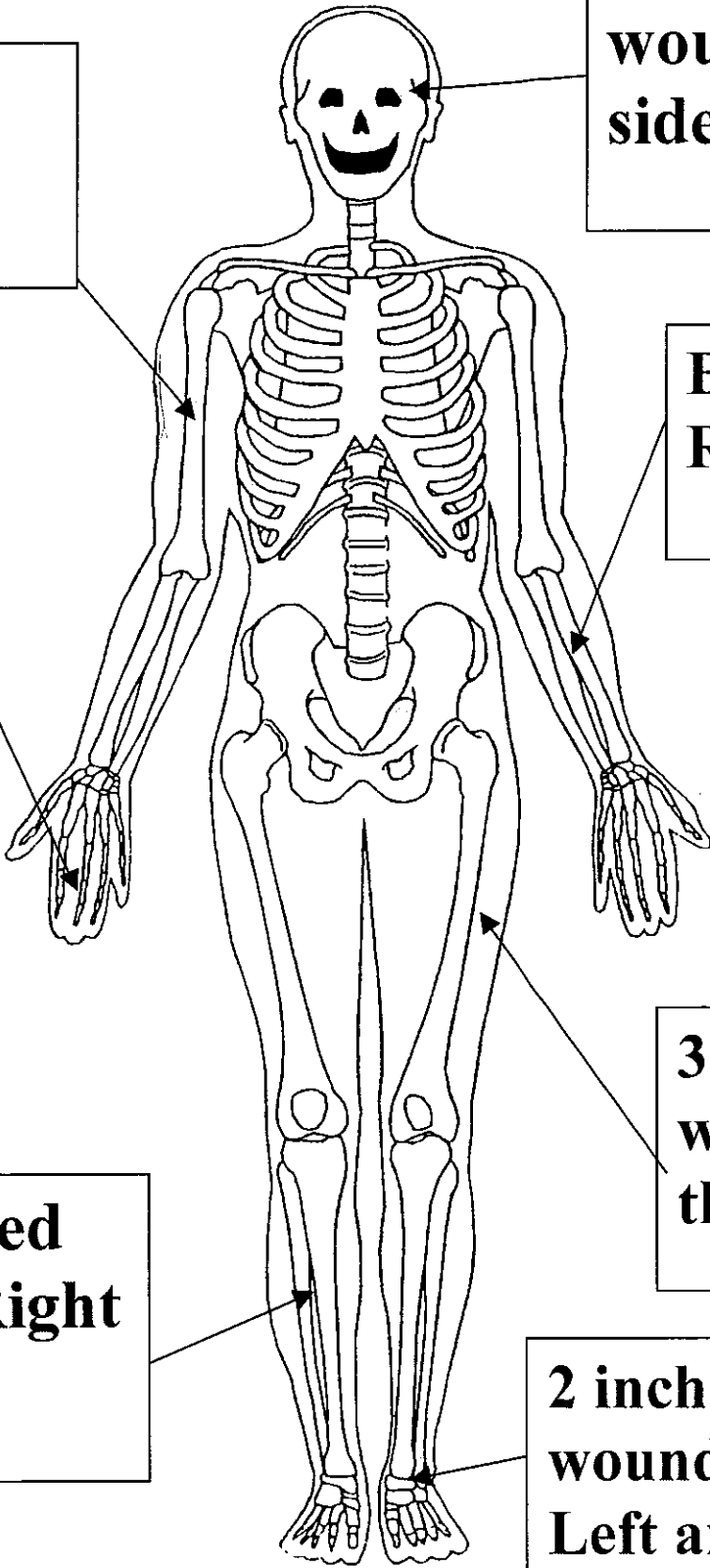
**Broken left Radius**

**4 fingers amputated right hand**

**3 inch open wound on the left thigh**

**Fractured Tibia, Right leg**

**2 inch open wound on front of Left ankle**



## INITIAL ASSESSMENT

PROCEDURES		CRITICAL SKILL
1. SCENE SIZE UP	<input type="checkbox"/> <input type="checkbox"/>	*A. Observe area to ensure safety *B. Call for help
2. MECHANISM OF INJURY	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Determine causes of injury, if possible *B. Triage: Immediate, Delayed, Minor or Deceased. *C. Ask patient (if conscious) what happened
3. INITIAL ASSESSMENT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Verbalize general impression of the patient(s) *B. Determine responsiveness/level of consciousness (AVPU) Alert, Verbal, Painful, Unresponsive *C. Determine chief complaint/apparent life threat
4. ASSESS AIRWAY AND BREATHING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver, depending on the presence of cervical spine (neck) injuries B. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds) C. If present, treat sucking chest wound
5. ASSESS FOR CIRCULATION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Check for presence of a carotid pulse (5-10 seconds) B. If present, control life threatening bleeding C. Start treatment for all other life threatening injuries/conditions (reference Rule 2).

# PATIENT ASSESSMENT

PROCEDURES			CRITICAL SKILL												
1. HEAD	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		*A. Check head for DOTS: Deformities, Open wounds, Tenderness and Swelling *B. Check and touch the scalp *C. Check the face *D. Check the ears for bleeding or clear fluids *E. Check the eyes for any discoloration, unequal pupils, reaction to light, foreign objects and bleeding *F. Check the nose for any bleeding or drainage *G. Check the mouth for loose or broken teeth, foreign objects, swelling or injury of tongue, unusual breath odor and discoloration												
2. NECK	<input type="checkbox"/> <input type="checkbox"/>		*A. Check the neck for DOTS *B. Inspect for medical ID												
3. CHEST	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		*A. Check chest area for DOTS *B. Feel chest for equal breathing movement on both sides *C. Feel chest for inward movement in the rib areas during inhalations												
4. ABDOMEN	<input type="checkbox"/>		*A. Check abdomen (stomach) for DOTS												
5. PELVIS	<input type="checkbox"/> <input type="checkbox"/>		*A. Check pelvis for DOTS *B. Inspect pelvis for injury by touch (Visually inspect and verbally state inspection of crotch and buttocks areas)												
6. LEGS	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">L</td> <td style="width: 50%; text-align: center;">R</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	L	R	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		*A. Check each leg for DOTS B. Inspect legs for injury by touch C. Unresponsive: Check legs for paralysis (pinch inner side of leg on calf) *D. Responsive: Check legs for motion; places hand on bottom of each foot and states "Can you push against my hand?" *E. Check for medical ID bracelet
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<input type="checkbox"/>	<input type="checkbox"/>														
<input type="checkbox"/>	<input type="checkbox"/>														
8. BACK SURFACES	<input type="checkbox"/>		*A. Check back for DOTS												

## 4 INCH OPEN WOUND ON THE LEFT SIDE OF HEAD

### DRESSINGS AND BANDAGING - OPEN WOUNDS

PROCEDURES		CRITICAL SKILL
1. EMERGENCY CARE FOR AN OPEN WOUND	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Control bleeding *B. Prevent further contamination *C. Bandage dressing in place after bleeding has been controlled *D. Keep patient lying still
2. APPLY DRESSING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Use sterile dressing B. Cover entire wound C. Control bleeding D. Do not remove dressing
3. APPLY BANDAGE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Do not bandage too tightly. B. Do not bandage too loosely. C. Do not leave loose ends. D. Cover all edges of dressing. E. Do not cover tips of fingers and toes, unless they are injured. F. Bandage from the bottom of the limb to the top (distal to proximal) if applicable.

## FRACTURED TIBIA, RIGHT LEG

### SPLINTING UPPER EXTREMITY/LOWER EXTREMITY FRACTURES (AIR SPLINT)

PROCEDURES	CRITICAL SKILL
1. CARE FOR FRACTURE	<input type="checkbox"/> *A. Assess distal circulation, sensation, and motor function(fingers/toes)
2. IMMOBILIZE FRACTURE	<input type="checkbox"/> A. Grasp above and below the injury site <input type="checkbox"/> B. Maintain support <input type="checkbox"/> C. Properly apply air splint <input type="checkbox"/> D. Splint should be relatively free of wrinkles <input type="checkbox"/> E. Inflate splint to point that slight dent can be made <input type="checkbox"/> *F. Reassess distal circulation, sensation, and motor function (fingers/toes)
3. MONITOR AIR-INFLATED SPLINT	<input type="checkbox"/> *A. Periodically check for increase or decrease in pressure <input type="checkbox"/> *B. Monitor pressure in splint with finger tip <input type="checkbox"/> C. Make sure desired pressure is maintained <input type="checkbox"/> *D. Reassess distal circulation, sensation, and motor function (fingers/toes)

**NOTE:** Air splints may not be used with open (protruding bones) fractures.  
 Air splints may only be used on the lower part of the extremities (from below the elbow on the arm and below the knee to the leg).

## 3 INCH OPEN WOUND ON LEFT THIGH DRESSINGS AND BANDAGING - OPEN WOUNDS

PROCEDURES	CRITICAL SKILL
1. EMERGENCY CARE FOR AN OPEN WOUND	<input type="checkbox"/> *A. Control bleeding <input type="checkbox"/> *B. Prevent further contamination <input type="checkbox"/> *C. Bandage dressing in place after bleeding has been controlled <input type="checkbox"/> *D. Keep patient lying still
2. APPLY DRESSING	<input type="checkbox"/> A. Use sterile dressing <input type="checkbox"/> B. Cover entire wound <input type="checkbox"/> C. Control bleeding <input type="checkbox"/> D. Do not remove dressing
3. APPLY BANDAGE	<input type="checkbox"/> A. Do not bandage too tightly. <input type="checkbox"/> B. Do not bandage too loosely. <input type="checkbox"/> C. Do not leave loose ends. <input type="checkbox"/> D. Cover all edges of dressing. <input type="checkbox"/> E. Do not cover tips of fingers and toes, unless they are injured. <input type="checkbox"/> F. Bandage from the bottom of the limb to the top (distal to proximal) if applicable.

## 2 INCH OPEN WOUND ON FRONT OF LEFT ANKLE DRESSINGS AND BANDAGING - OPEN WOUNDS

PROCEDURES	CRITICAL SKILL
1. EMERGENCY CARE FOR AN OPEN WOUND	<input type="checkbox"/> *A. Control bleeding <input type="checkbox"/> *B. Prevent further contamination <input type="checkbox"/> *C. Bandage dressing in place after bleeding has been controlled <input type="checkbox"/> *D. Keep patient lying still
2. APPLY DRESSING	<input type="checkbox"/> A. Use sterile dressing <input type="checkbox"/> B. Cover entire wound <input type="checkbox"/> C. Control bleeding <input type="checkbox"/> D. Do not remove dressing
3. APPLY BANDAGE	<input type="checkbox"/> A. Do not bandage too tightly. <input type="checkbox"/> B. Do not bandage too loosely. <input type="checkbox"/> C. Do not leave loose ends. <input type="checkbox"/> D. Cover all edges of dressing. <input type="checkbox"/> E. Do not cover tips of fingers and toes, unless they are injured. <input type="checkbox"/> F. Bandage from the bottom of the limb to the top (distal to proximal) if applicable.

- JUDGES HAND THE TEAM THE ENVELOPE  
(patient statement)

## TWO-RESCUER CPR (WITH SPINAL INJURY - MANIKIN ONLY)

PROCEDURES	CRITICAL SKILL
1. RESCUER 1 - ESTABLISH UNRESPONSIVENESS	<input type="checkbox"/> A. Tap or gently shake shoulders <input type="checkbox"/> *B. "Are you OK?" <input type="checkbox"/> C. Determine unconsciousness without compromising cervical spine (neck) injury <input type="checkbox"/> *D. "Call for help" <input type="checkbox"/> *E. "Get AED" (Note: If AED is used, follow local protocol)
2. RESCUER 1 - MONITOR PATIENT FOR BREATHING	<input type="checkbox"/> A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
3. RESCUER 1 - CHECK FOR CAROTID PULSE	<input type="checkbox"/> A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck <input type="checkbox"/> B. Check for presence of carotid pulse for 5 to 10 second <input type="checkbox"/> *C. Absence of pulse
4. RESCUER 1 - POSITION FOR COMPRESSIONS	<input type="checkbox"/> A. Locate the compression point on the breastbone between the nipples <input type="checkbox"/> B. Place the heel of one hand on sternum the compression point and the other hand on top of the first so hands are parallel <input type="checkbox"/> C. Do not rest fingers on the chest Keep heel of your hand on chest during and between compressions
5. RESCUER 1 - DELIVER CARDIAC COMPRESSION	<input type="checkbox"/> A. Give 30 compressions <input type="checkbox"/> B. Compressions are at the rate of at least 100 per minute (30 compressions delivered within 18 seconds) <input type="checkbox"/> C. Down stroke for compression must be on or through compression line <input type="checkbox"/> D. Return to baseline on upstroke of compression
6. RESCUER 2 - ESTABLISH AIRWAY	<input type="checkbox"/> A. Kneel at the patient's head <input type="checkbox"/> B. Correctly execute jaw thrust maneuver

7. RESCUER 2 - VENTILATIONS BETWEEN COMPRESSIONS	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Rescuer 1 should place the barrier device (pocket mask/Shield with one way valve) on manikin (OPTION 1: When spinal injury is present, Rescuer No. 2 can hold barrier device on manikin after Rescuer No. 1 correctly places device over the mouth and nose (OPTION 2: Rescuer 1 can place the device on the manikin each time patient is ventilated</p> <p>B. Rescuer 2 Gives 2 breaths 1 second each</p> <p>C. Each breath - minimum of .8 (through .7 liter line on new manikins)</p> <p>D. Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)</p>
8. CONTINUE CPR FOR TIME STATED IN PROBLEM	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths</p> <p>B. To check pulse, stop chest compressions for no more than 10 seconds after the first set of CPR</p> <p>C. Rescuer at patient's head maintains airway and checks for adequate breathing or coughing</p> <p>D. The rescuer giving compressions shall feel for a carotid pulse</p> <p>E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation after each set</p> <p>F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle</p>
9. CHANGING RESCUERS	<input type="checkbox"/>	<p>A. Change of rescuers shall be made in 5 seconds or less and will be completed as outlined in problem. Team must switch every 5 cycles in less than 5 seconds.</p>
10. CHECK FOR RETURN OF PULSE	<input type="checkbox"/> <input type="checkbox"/>	<p>A. A final pulse check will be required at the end of the last set of CPR (within 10 seconds)</p> <p>*B. "Patient has a pulse."</p>



# COMPOUND FRACTURE OF THE RIGHT HUMERUS

## SPLINTING (RIGID) UPPER EXTREMITY FRACTURES AND DISLOCATIONS

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	<input type="checkbox"/>	*A. Check for distal circulation, sensation, and motor function <ul style="list-style-type: none"> <li>▪ Do not attempt to reduce dislocations (if applies)</li> </ul>
2. IMMOBILIZING FRACTURE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Selection of appropriate rigid splint of proper length B. Support affected limb and limit movement C. Apply appropriate padded rigid splint against injured extremity D. Place appropriate roller bandage in hand to ensure the position of function E. Secure splint to patient with roller bandage, handkerchiefs, cravats, or cloth strips F. Apply wrap distal to proximal *G. Reassess distal circulation, sensation, and motor function
3. SECURING WITH SLING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Place sling over chest and under arm B. Hold or stabilize arm C. Triangle should extend behind elbow on injured side D. Pull sling around neck and tie on uninjured side E. Pad at the neck (except when C-Collar is present) F. Secure excess material at elbow G. Fingertips should be exposed *H. Reassess distal circulation, sensation, and motor function
4. SECURING SLING WITH SWATHE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Use triangle cravat or factory swathe B. Swathe is tied around chest and injured arm *C. Reassess distal circulation, sensation, and motor function

**4 Fingers amputated on right hand  
DRESSINGS AND BANDAGING - OPEN WOUNDS**

PROCEDURES	CRITICAL SKILL	
1. EMERGENCY CARE FOR AN OPEN WOUND	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Control bleeding *B. Prevent further contamination *C. Bandage dressing in place after bleeding has been controlled *D. Keep patient lying still
2. APPLY DRESSING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Use sterile dressing B. Cover entire wound C. Control bleeding D. Do not remove dressing
3. APPLY BANDAGE	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Do not bandage too tightly. B. Do not bandage too loosely. C. Do not leave loose ends. D. Cover all edges of dressing. E. Do not cover tips of fingers and toes, unless they are injured. F. Bandage from the bottom of the limb to the top (distal to proximal) if applicable.

## AMPUTATIONS

- \*1. Wrap in slightly moistened sterile dressing
2. Place in plastic bag or wrap in plastic
- \*3. Keep part cool avoid freezing
- \*4. Do not place in water or direct contact with ice
- \*5. Transport with patient
6. Label with patients name

## BROKEN LEFT RADIUS

### SPLINTING UPPER EXTREMITY/LOWER EXTREMITY FRACTURES (AIR SPLINT)

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	<input type="checkbox"/>	*A. Assess distal circulation, sensation, and motor function(fingers/toes)
2. IMMOBILIZE FRACTURE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Grasp above and below the injury site B. Maintain support C. Properly apply air splint D. Splint should be relatively free of wrinkles E. Inflate splint to point that slight dent can be made *F. Reassess distal circulation, sensation, and motor function (fingers/toes)
3. MONITOR AIR-INFLATED SPLINT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Periodically check for increase or decrease in pressure *B. Monitor pressure in splint with finger tip C. Make sure desired pressure is maintained *D. Reassess distal circulation, sensation, and motor function (fingers/toes)

**NOTE:** Air splints may not be used with open (protruding bones) fractures.  
 Air splints may only be used on the lower part of the extremities (from below the elbow on the arm and below the knee to the leg).

## TWO-PERSON LOG ROLL

PROCEDURES		CRITICAL SKILL
1. STABILIZE HEAD	<input type="checkbox"/>	*A. Stabilize the head and neck
2. PREPARING THE PATIENT	<input type="checkbox"/>	A. When placing patient on board place board parallel to the patient
	<input type="checkbox"/>	B. Kneel at the patient's shoulders opposite the board (if used) leaving room to roll the patient toward knees Raise the patient's arm, if not injured (the one closer to the rescuer) above the patient's head
3. PREPARING THE RESCUER	<input type="checkbox"/> <input type="checkbox"/>	A. Grasp the patient at the shoulder and pelvis area B. Give instructions to bystander, if used to support
4. ROLLING THE PATIENT	<input type="checkbox"/>	A. While stabilizing the head, roll the patient toward the rescuer by pulling steadily and evenly at the shoulder and pelvis areas
	<input type="checkbox"/>	B. The head and neck should remain on the same plane as the torso
	<input type="checkbox"/>	C. Maintain stability by holding patient with one hand and placing board (if used) with other
	<input type="checkbox"/>	D. Roll the body as a unit onto the board (if used) (board may be slanted or flat)
	<input type="checkbox"/>	E. Place the arm alongside the body

## IMMOBILIZATION OF CERVICAL SPINE

PROCEDURES		CRITICAL SKILL
1. ESTABLISH AND MAINTAIN IN-LINE IMMOBILIZATION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Place head in a neutral, in-line position unless patient complains of pain or the head is not easily moved into position B. Place head in alignment with spine C. Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with head immobilized
2. ASSESS CSM	<input type="checkbox"/>	*A. Assess distal circulation, sensation, and motor function (on all extremities)
3. ASSESS CERVICAL REGION AND NECK	<input type="checkbox"/> <input type="checkbox"/>	*A. Inspect and palpate for injuries or signs of injuries using: DOTS acronym B. Remove clothing or jewelry as necessary
4. BANDAGE ANY WOUND	<input type="checkbox"/>	A. Any neck wounds
5. APPLY CERVICAL SPINE IMMOBILIZATION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Apply properly sized collar or manual immobilization <u>One piece C-collar</u> A. Select proper sized collar B. Apply collar C. Ensure that patient's head is not twisted during application D. Ensure airway is open after placement <u>Two piece C-collar</u> A. Select proper sized collar B. Apply rear section to back of neck C. Center rigid support on spine D. Apply front section ( overlaps rear section) E. Ensure chin rests in chin cavity F. Secure collar with Velcro straps G. Ensure airway is open after placement
6. SECURE HEAD TO APPROPRIATE IMMOBILIZATION DEVICE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Immobilize patient to appropriate immobilization device B. Use head set or place rolled blankets or towels on each side of head C. Tape and or strap head securely to appropriate immobilization device
7. REASSESS	<input type="checkbox"/> <input type="checkbox"/>	*A. Reassess distal circulation, sensation, and motor function *B. Assess patient response and level of comfort

## IMMOBILIZATION- LONG SPINE BOARD (Backboard)

PROCEDURES	CRITICAL SKILL
1. MOVE THE PATIENT ONTO THE LONG SPINE BOARD	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. One First Aid Provider at the head must maintain in-line immobilization of the head and spine</li> <li><input type="checkbox"/> B. First Aid Provider at the head directs the movement of the patient</li> <li><input type="checkbox"/> C. Other First Aid Provider control movement of the rest of body</li> <li><input type="checkbox"/> D. Other First Aid Provider position themselves on same side</li> <li><input type="checkbox"/> E. Upon command of First Aid Provider at the head, roll patient onto side toward First Aid Providers</li> <li><input type="checkbox"/> F. Quickly assess posterior body, if not already done</li> <li><input type="checkbox"/> G. Place long spine board next to the patient with top of board beyond top of head</li> <li><input type="checkbox"/> H. Place patient onto the board at command of the First Aid Provider at head while holding in-line immobilization using methods to limit spinal movement</li> <li><input type="checkbox"/> I. Slide patient into proper position using smooth coordinated moves keeping spine in alignment</li> </ul>
2. PAD VOIDS BETWEEN PATIENT AND LONG SPINE BOARD	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. Select and use appropriate padding</li> <li><input type="checkbox"/> B. Place padding as needed under the head</li> <li><input type="checkbox"/> C. Place padding as needed under torso</li> </ul>
3. IMMOBILIZE BODY TO THE LONG SPINE BOARD	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. Strap and secure body to board ensuring spinal immobilization, beginning at shoulder and working toward feet</li> </ul>
4. IMMOBILIZE HEAD TO THE LONG SPINE BOARD	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. Using head set or place rolled towels on each side of head</li> <li><input type="checkbox"/> B. Tape and/or strap head securely to board, ensuring cervical spine immobilization</li> </ul>
5. REASSESS	<ul style="list-style-type: none"> <li><input type="checkbox"/> *A. Reassess distal circulation, sensation, and motor function</li> <li><input type="checkbox"/> *B. Assess patient response and level of comfort</li> </ul>

# SHOCK

PROCEDURES	CRITICAL SKILL
1. CHECK FOR SIGNS AND SYMPTOMS OF SHOCK	<input type="checkbox"/> *A. Check for pale (or bluish) skin (in victim with dark skin examine inside of mouth and nailbeds for bluish coloration). <input type="checkbox"/> *B. Check for cool, clammy skin <input type="checkbox"/> *C. Check for weakness
2. TREATMENT	<input type="checkbox"/> A. Keep victim lying down <input type="checkbox"/> B. Cover with blanket to prevent loss of body heat and place a blanket under the patient. (Do not try to place blanket under patient with possible spinal injuries) <input type="checkbox"/> C. Elevate according to injury <input type="checkbox"/> *D. Reassure and calm the patient

**Option 1: Elevate the lower extremities or foot end of the back board.** This procedure is performed in most cases. Place the patient flat, face up and elevate the legs or foot end of the back board 8 to 12 inches. Do not elevate any limbs with possible fractures or pelvic injuries until they have been properly splinted. Remember to consider the mechanism of injury for every patient.

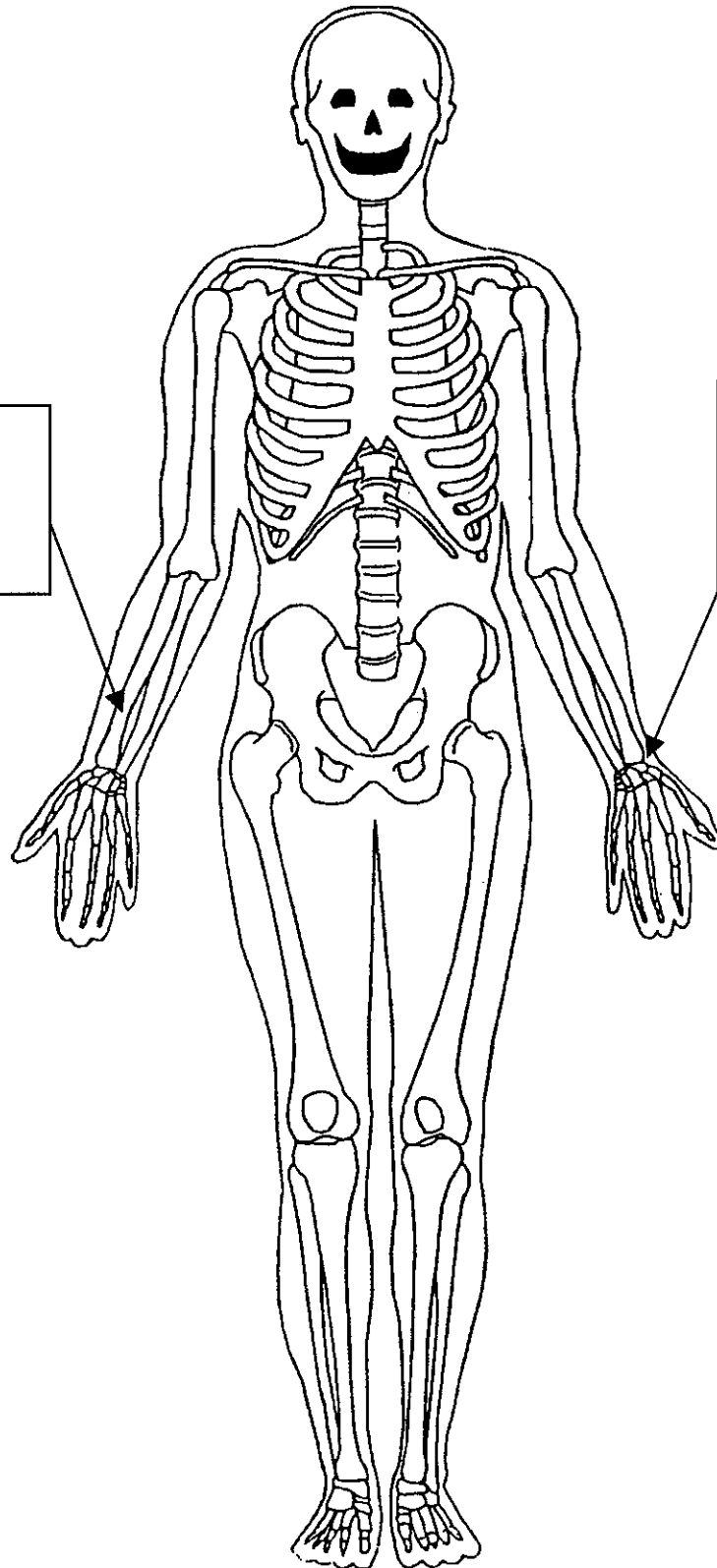
**Option 2: Lay the patient flat, face up.** This is the supine position, used for patients with a spinal injury and patients who have serious injuries to the extremities that have not been supported. If the patient is placed in this position, you must constantly be prepared for vomiting.

**Option 3: Slightly raise the head and shoulders.** This position should be used only for responsive patients with no spinal injuries, life threatening chest or abdominal injuries and only for patients having difficulty breathing, but who have an open airway. A semi-seated position can also be used for patients with a history of heart problems. It is not recommended for moderate to severe cases of shock. Be certain to keep the patient's head from tilting forward.

Note: Injuries requiring the injured side to be tilted or placed down may be done after patient has been properly secured to a back board if a back board is required.

# Patient # 1

**Broken Right  
Radius**



**Broken  
Left Wrist**



## INITIAL ASSESSMENT

PROCEDURES		CRITICAL SKILL
1. SCENE SIZE UP	<input type="checkbox"/> <input type="checkbox"/>	*A. Observe area to ensure safety *B. Call for help
2. MECHANISM OF INJURY	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Determine causes of injury, if possible *B. Triage: Immediate, Delayed, Minor or Deceased. *C. Ask patient (if conscious) what happened
3. INITIAL ASSESSMENT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Verbalize general impression of the patient(s) *B. Determine responsiveness/level of consciousness (AVPU) Alert, Verbal, Painful, Unresponsive *C. Determine chief complaint/apparent life threat
4. ASSESS AIRWAY AND BREATHING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver, depending on the presence of cervical spine (neck) injuries B. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds) C. If present, treat sucking chest wound
5. ASSESS FOR CIRCULATION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Check for presence of a carotid pulse (5-10 seconds) B. If present, control life threatening bleeding C. Start treatment for all other life threatening injuries/conditions (reference Rule 2).

# PATIENT ASSESSMENT

PROCEDURES			CRITICAL SKILL
1. HEAD	<input type="checkbox"/>	<input type="checkbox"/>	*A. Check head for DOTS: Deformities, Open wounds, Tenderness and Swelling *B. Check and touch the scalp *C. Check the face *D. Check the ears for bleeding or clear fluids *E. Check the eyes for any discoloration, unequal pupils, reaction to light, foreign objects and bleeding *F. Check the nose for any bleeding or drainage *G. Check the mouth for loose or broken teeth, foreign objects, swelling or injury of tongue, unusual breath odor and discoloration
2. NECK	<input type="checkbox"/>	<input type="checkbox"/>	*A. Check the neck for DOTS *B. Inspect for medical ID
3. CHEST	<input type="checkbox"/>	<input type="checkbox"/>	*A. Check chest area for DOTS *B. Feel chest for equal breathing movement on both sides *C. Feel chest for inward movement in the rib areas during inhalations
4. ABDOMEN	<input type="checkbox"/>	<input type="checkbox"/>	*A. Check abdomen (stomach) for DOTS
5. PELVIS	<input type="checkbox"/>	<input type="checkbox"/>	*A. Check pelvis for DOTS *B. Inspect pelvis for injury by touch (Visually inspect and verbally state inspection of crotch and buttocks areas)
6. LEGS	L <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Check each leg for DOTS B. Inspect legs for injury by touch C. Unresponsive: Check legs for paralysis (pinch inner side of leg on calf) *D. Responsive: Check legs for motion; places hand on bottom of each foot and states "Can you push against my hand?" *E. Check for medical ID bracelet
7. ARMS	L <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	R <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Check each arm for DOTS B. Inspect arms for injury by touch C. Unresponsive: Check arms for paralysis (pinch inner side of wrist) *D. Responsive: Check arms for motion (in a conscious patient; team places fingers in each hand of patient and states "Can you squeeze my fingers?" *E. Check for medical ID bracelet
8. BACK SURFACES	<input type="checkbox"/>	<input type="checkbox"/>	*A. Check back for DOTS

# BROKEN LEFT WRIST

## SPLINTING (SOFT) UPPER EXTREMITY FRACTURES AND DISLOCATIONS (WRIST AND HAND)

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	<input type="checkbox"/> <input type="checkbox"/>	*A. Check for distal circulation, sensation, and motor function B. Do not attempt to reduce dislocations (if applies)
2. IMMOBILIZING FRACTURE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Support affected limb and limit movement B. Place two cravats (triangular bandage) under wrist/hand C. Place pillow length wise under wrist/hand, on top of cravats (pillow should extend past fingertips) D. Lower limb, adjust cravats to tie E. Tie cravats distal to proximal
3. SECURING WITH SLING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Place sling over chest and under arm B. Hold or stabilize arm C. Triangle should extend behind elbow or injured side D. Secure excess material at elbow E. Fingertips should be exposed *F. Reassess distal circulation, sensation, and motor function
4. SECURING SLING WITH SWATHE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Use triangle cravat or factory swathe B. Swathe is tied around chest and injured arm *C. Reassess distal circulation, sensation, and motor function

# BROKEN RIGHT RADIUS

## SPLINTING (SOFT) UPPER EXTREMITY FRACTURES AND DISLOCATIONS (WRIST AND HAND)

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	<input type="checkbox"/> <input type="checkbox"/>	*A. Check for distal circulation, sensation, and motor function B. Do not attempt to reduce dislocations (if applies)
2. IMMOBILIZING FRACTURE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Support affected limb and limit movement B. Place two cravats (triangular bandage) under wrist/hand C. Place pillow length wise under wrist/hand, on top of cravats (pillow should extend past fingertips) D. Lower limb, adjust cravats to tie E. Tie cravats distal to proximal
3. SECURING WITH SLING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Place sling over chest and under arm B. Hold or stabilize arm C. Triangle should extend behind elbow or injured side D. Secure excess material at elbow E. Fingertips should be exposed *F. Reassess distal circulation, sensation, and motor function
4. SECURING SLING WITH SWATHE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Use triangle cravat or factory swathe B. Swathe is tied around chest and injured arm *C. Reassess distal circulation, sensation, and motor function

# SHOCK

PROCEDURES	CRITICAL SKILL
1. CHECK FOR SIGNS AND SYMPTOMS OF SHOCK	<input type="checkbox"/> *A. Check for pale (or bluish) skin (in victim with dark skin examine inside of mouth and nailbeds for bluish coloration). <input type="checkbox"/> *B. Check for cool, clammy skin <input type="checkbox"/> *C. Check for weakness
2. TREATMENT	<input type="checkbox"/> A. Keep victim lying down <input type="checkbox"/> B. Cover with blanket to prevent loss of body heat and place a blanket under the patient. (Do not try to place blanket under patient with possible spinal injuries) <input type="checkbox"/> C. Elevate according to injury <input type="checkbox"/> *D. Reassure and calm the patient

**Option 1: Elevate the lower extremities or foot end of the back board.** This procedure is performed in most cases. Place the patient flat, face up and elevate the legs or foot end of the back board 8 to 12 inches. Do not elevate any limbs with possible fractures or pelvic injuries until they have been properly splinted. Remember to consider the mechanism of injury for every patient.

**Option 2: Lay the patient flat, face up.** This is the supine position, used for patients with a spinal injury and patients who have serious injuries to the extremities that have not been supported. If the patient is placed in this position, you must constantly be prepared for vomiting.

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