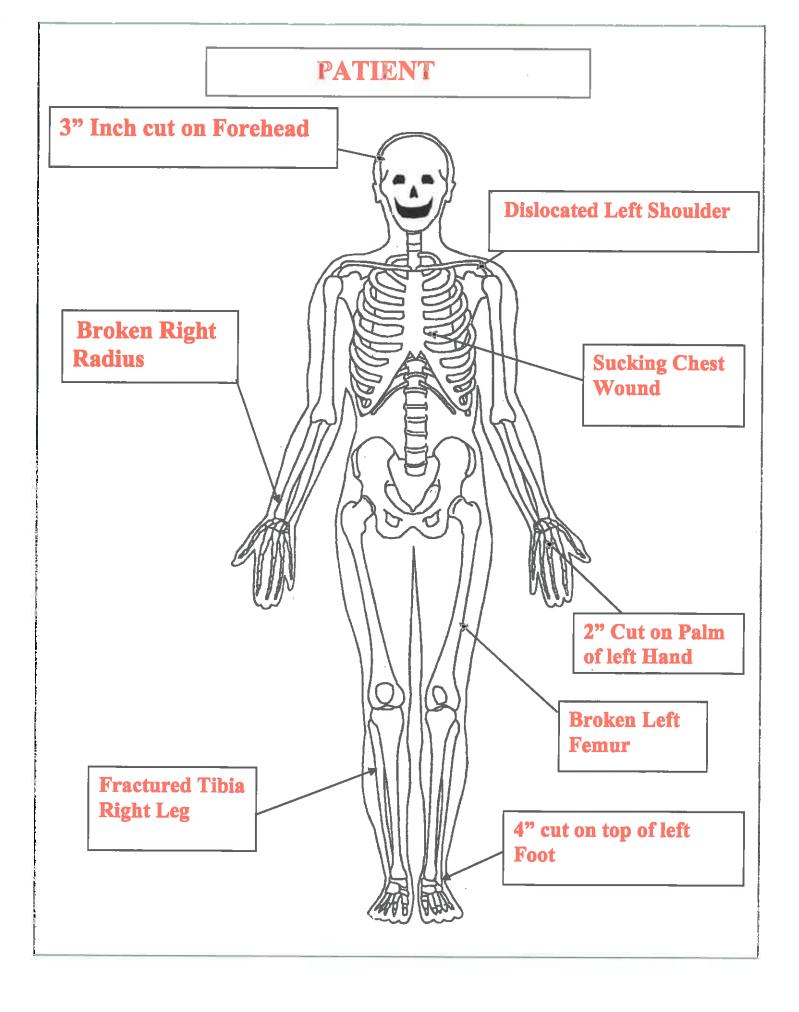
Post # 6

2017

First Aid Problem

You and your first aid partner have been called to an accident on the 27 East longwall gate section. The victim has been run over on the main track entry by the dayshift mantrip on its way to the section. The mantrip has been moved away from the victim and the scene is safe. He is laying on his back, unconscious, not breathing. Perform one set of 2-man CPR and each contestant shall do one set of A.V. Treat and prepare for transportation.



List of Injuries

3" cut on Forehead
Dislocated Left Shoulder
Broken Right Radius
Sucking Chest Wound
2" Cut on Palm of Left Hand
Broken Left Femur
Fractured Tibia Right Leg
4" cut on top of Left Foot

Two: RESCUER CPR WITH AED (WITH SPINAL INJURY- MANILIN ONLY)

	PROCEDURES			CRITICAL SKILL
	RESCUER 1 - ESTABLISH UNRESPONSIVENESS	00000	A. *B. C. *D. *E.	Tap or gently shake shoulders "Are you OK?" Determine unconsciousness without compromising cervical spine (neck) injury "Call for help" "Get AED" (Note: If AED is used, follow local protocol)
	RESCUER 1 - MONITOR PATIENT FOR BREATHING	B	A.	Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
	RESCUER 1 – CHECK FOR CAROTID PULSE	0 0 0 .	B. *C. *D.	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 Check for presence of carotid pulse for 5 to 10 second Absence of pulse Immediately start CPR if no pulse
:	RESCUER 1 - POSITION FOR COMPRESSIONS	0 0 0	В.	Locate the compression point on the breastbone between the nipples Place the heel of one hand on sternum the compression point and the other hand on top of the first so hands are parallel Do not rest fingers on the chest Keep heel of your hand on chest during and between compressions
1	RESCUER 1 - DELIVER CARDIAC COMPRESSION	¤ 0 0 0	A. B. C. D.	Give 30 compressions Compressions are at the rate of 100 to 120 per minute (30 compressions delivered within 18 seconds) Down stroke for compression must be on or through compression line Return to baseline on upstroke of compression
	RESCUER 2 - ESTABLISH AIRWAY	0 0	A. B.	Kneel at the patient's head Correctly execute jaw thrust maneuver

7. RESCUER 2 - VENTILATIONS BETWEEN COMPRESSIONS		B. C.	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 Rescuer 2 Gives 2 breaths 1 second each Each breath - minimum of .8 (through .7 liter line on new manikins)
8. CONTINUE CPR FOR TIME STATED IN PROBLEM		A. B. C. D. E.	Provide 5 cycles of 30 chest compressions and 2 rescue breaths To check pulse, stop chest compressions for no more than 10 seconds after the first set of CPR Rescuer at patient's head maintains airway and checks for adequate breathing or coughing The rescuer giving compressions shall feel for a carotid pulse If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation after each set 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
9. SECOND RESCUE ARRIVES WITH A (DURING FIFTH S OF COMPRESSION	ED	А. В.	First rescuer continues compressions while second rescuer turns on AED and applies pads. RESCUERS SWITCH-First rescuer clears victim, allowing AED to analyze. (Judges shall provide an envelope indicating a shockable or non-shockable rhythm) If AED indicates a shockable rhythm, first rescuer clears victim again and delivers shock.
10. RESUME HIGH- QUALITY CPR	0	A. B.	Second rescuer gives 30 compressions immediately after shock delivery (2 cycles). First rescuer successfully delivers 2 breaths.

11. CHANGING RESCUERS	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.
12. CHECK FOR RETURN OF PULSE	A. A final pulse check will be required at the end of the last set of CPR (within 10 seconds) *B. "Patient has a pulse."

MOUTH-TO-MASK RESUSCITATION

PROCEDURES

CRITICAL SKILL

1. ESTABLISH UNRESPONSIVENESS	0 0 0 0	*B. "A C. D co *D. "C *E. "C	ap or gently shake shoulders Are you OK?" etermine unconsciousness without empromising C-spine injury Call for help" Get AED" (Note: If AED is used, follow local rotocol)
2. MONITOR PATIENT FOR BREATHING		fa	ook for absence of breathing (no chest rise and ll) or gasping, which are not considered adequate vithin 10 seconds)
3. CHECK FOR CAROTID PULSE	0 0	th B. Cl	orrectly locate the carotid pulse (on the side of the rescuer) theck for presence of carotid pulse within 10 theconds tresence of pulse
4. ESTABLISH AIRWAY	<u> </u>	m	orrectly execute head tilt / chin lift or jaw thrust aneuver depending on the presence of cervical pine (neck) injuries
5. VENTILATE PATIENT		B. Ve	ace barrier device (pocket mask/shield with one- ay valve on manikin entilate patient 10 to 12 times per minute. Each entilation will be provided at a minimum of .8 arough .7 liter line on new manikins)
6. CHECK FOR RETURN OF BREATHING AND PULSE	D	(or an	fter providing the required number of breaths utlined in problem), check for return of breathing and carotid pulse within 10 seconds attent is breathing and has a pulse"

SUCKING CHEST WOUND

PROCEDURES

CRITICAL SKILL

1. EXPOSE WOUND		*A. Expose entire wound
2. SEAL WOUND AND CONTROL BLEEDING	0	 *A. Place occlusive dressing over wound (If occlusive dressing is not available use gloved hand) B. Apply direct pressure as needed to stop the bleeding
3. APPLY AN OCCLUSIVE DRESSING		 A. Keep patient calm and quiet *B. Explain to the patient what you are doing *C. Ensure dressing is large enough not to be sucked into the wound (two inches beyond edges of wound) D. Affix dressing with tape *E. Seal on three sides *F. Monitor patient closely for increasing difficulty breathing *G. Transport as soon as possible H. Keep patient positioned on the injured side unless other injuries prohibit *I. Reassess wound to ensure bleeding control *J. Assess level of consciousness(AVPU), respiratory status and patient response

INITIAL ASSESSMENT

PROCEDURES			CRITICAL SKILL
1. SCENE SIZE UP	0	*A. *B.	Observe area to ensure safety Call for help
2. MECHANISM OF INJURY	0 0 0	*A. *B. *C.	Determine causes of injury, if possible Triage: Immediate, Delayed, Minor or Deceased. Ask patient (if conscious) what happened
3. INITIAL ASSESSMENT	0	*B.	Verbalize general impression of the patient(s) Determine responsiveness/level of consciousness (AVPU) Alert, Verbal, Painful, Unresponsive
		*C.	Determine chief complaint/apparent life threat
4. ASSESS AIRWAY AND BREATHING		A. B.	Correctly execute head-tilt/chin-lift or jaw thrust maneuver, depending on the presence of cervical spine (neck) injuries Look for absence of breathing (no chest rise and
AND BREATHING			fall) or gasping, which are not considered adequate (within 10 seconds) If present, treat sucking chest wound
5. ASSESS FOR CIRCULATION	0 0 0	C.	Check for presence of a carotid pulse (5-10 seconds) If present, control life threatening bleeding Start treatment for all other life threatening
CIRCULATION		C.	Start treatment for all other life threatening injuries/conditions (reference Rule 2).

IMMEDIATE: Rapid Patient Assessment treating all life threats Load and Go. If the treatment interrupts the rapid trauma assessment, the assessment will be completed at the end of the treatment.

DELAYED: Detailed Patient Assessment treating all injuries and conditions and prepare for transport.

MINOR: (Can walk) Detailed Patient Assessment treating all injuries and conditions and prepare for transport. After all IMMEDIATE and DELAYED patient(s) have been treated and transported.

DECEASED: Cover

NOTE: Each critical skill identified with an asterisk (*) shall be clearly verbalized by the team as it is being conducted. After initially stating what DOTS stands for, the team may simply state "DOTS" when making their checks.

• Teams may use the acronym "CSM" when checking circulation, sensation, and motor function.

Patient Assessment

PROCEDURES			CRITICAL SKILL
1. HEAD		*A. *B. *C. *D. *E. *F. *G.	Check the ears for bleeding or clear fluids Check the eyes for any discoloration, unequal pupils, reaction to light, foreign objects and bleeding Check the nose for any bleeding or drainage
2. NECK	0	*A. *B.	Check the neck for DOTS Inspect for medical ID
3. CHEST	0	*A. *B. *C.	
4. ABDOMEN		*A.	Check abdomen (stomach) for DOTS
5. PELVIS	0	*A. *B.	Check pelvis for DOTS Inspect pelvis for injury by touch (Visually inspect and verbally state inspection of crotch and buttocks areas)
6. LEGS	L R	*A. B. C. *D.	Check each leg for DOTS Inspect legs for injury by touch Unresponsive: Check legs for paralysis (pinch inner side of leg on calf) Responsive: Check legs for motion; places hand on bottom of each foot and states "Can you push against my hand?" Check for medical ID bracelet
7. ARMS	L R		
8. BACK SURFACES		*A.	Check back for DOTS

3" Inch cut on Forehead

DRESSINGS AND BANDAGING - OPEN WOUNDS

PROCEDURES		CRITICAL SKILL
1. EMERGENCY CARE FOR AN OPEN WOUND	0 0	 *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	0 0	 A. Use sterile dressing B. Cover entire wound C. Control bleeding D. Do not remove dressing
3. APPLY BANDAGE	0 0 0 0 0	 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.

Multiple wounds will be treated as per procedures listed in patient assessment.

Impaled Objects

- *1. Do not remove
- 2. Expose wound
- 3. Control bleeding
- 4. Stabilize with a bulky dressing; criss-cross the layers
- 5. Tie 4in. wide cravats around to hold in place, or tape in place
- *6. Check for exit wound (treat when found)
- 7. Immobilize affected area

Impaled Objects in the Cheek

- *1. Examine; inside & outside
- 2. If end not impaled in mouth pull it out
- 3. Position head for drainage: if spinal injury, immobilize 1st and tilt board
- 4. Dress outside of wound
- *5. Gauze on inside only if patient alert, (Simulate only in contest and state, "I would leave 3-4 inches of gauze outside of mouth.")

Dislocated Left Shoulder

SPLINTING (RIGID) UPPER EXTREMITY FRACTURES AND DISLOCATIONS

	PROCEDURES		CRITICAL SKILL
1.	CARE FOR FRACTURE		*A. Check for distal circulation, sensation, and motor function Do not attempt to reduce dislocations (if applies)
		_	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
2.	IMMOBILIZING FRACTURE		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
		0	*G. Reassess distal circulation, sensation, and motor function
			A. Place sling over chest and under arm
	SECURING WITH SLING		B. Hold or stabilize arm
			C. Triangle should extend behind elbow on injured side
			D. Pull sling around neck and tie on uninjured side
3.			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
		0	A. Use triangle cravat or factory swathe
4.	SECURING SLING		B. Swathe is tied around chest and injured arm *C. Reassess distal circulation, sensation, and motor
	WITH SWATHE		function function

ELBOW (STRAIGHT POSITION)

Follow Procedures No. 1 and No. 2 above

FINGER/FINGERS

Immobilize Fracture

- 1. Tape injured finger to an adjacent uninjured finger; or
- 2. Tape injured finger to a tongue depressor, aluminum splint, or pen and pencil
- 3. Secure with sling and swathe

Dislocated Left Shoulder

COLLAR BONE

Support and limit movement of affected area Follow Procedures No. 1, No. 3 and No. 4 above

SHOULDER BLADE

Support and limit movement of affected area Follow Procedures No. 1, No. 3 and No. 4 above

NOTE: Do not reposition dislocations

Fractured Tibia Right Leg

SPLINTING UPPER EXTREMITY/LOWER EXTREMITY FRACTURES (AIR SPLINT)

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

Broken Left Femur

SPLINTING (RIGID OR SOFT) PELVIC GIRDLE, THIGH, KNEE, AND LOWER **LEG**

	PROCEDURE		CRITICAL SKILL
1.	DETERMINE NEED FOR SPLINTING		*A. Assess for: Pain Swelling Deformity B. Determine if splinting is warranted
2.	APPLY MANUAL STABILIZATION	0	Support affected limb and limit movement Do not attempt to reduce dislocations
3.	SELECT APPROPRIATE SPLINT		A. Select appropriate splinting method depending on position of extremity and materials available B. Select appropriate padding material
4.	PREPARE FOR SPLINTING	0	A. Remove or cut away clothing as needed *B. Assess distal circulation, sensation, and motor function C. Cover any open wounds with sterile dressing and bandage D. Measure splint E. Pad around splint for patient comfort

Broken Left Femur

		A. Maintain support while splinting
	· .	Living Splint:
		A. Immobilize the site of the injury
		B. Carefully place a pillow or folded blanket
		between the patients knees/legs
		C. Bind the legs together with wide straps or
		cravats
	-	D. Carefully place patient on long spine board
		E. Secure the patient to the long spine board (if
		primary splint)
		*F. Reassess distal circulation, sensation, and motor
		function
		Padded Board Splint:
		A. Splint with two long padded splinting boards (one should be long enough to extend from the
		patient's armpit to beyond the foot. The other
	!	should extend from the groin to beyond the
		foot.) (Lower leg requires boards to extend from
5. SPLINT		knee to below the foot.)
		B. Cushion with padding in the armpit and groin
	-	and all voids created at the ankle and knee
		C. Secure the splinting boards with straps and
		cravats
		D. Carefully place the patient on long spine board
		E. Secure the patient to the long spine board (if
		primary splint)
	. 🗆	*F. Reassess distal circulation, sensation, and motor
		function
	_	Other Splints:
		A. Immobilize the site of the injury
		B. Pad as needed C. Secure to splint distal to proximal
		D. Carefully place patient on long spine board
		E. Secure the patient to the long spine board (if
	1	primary splint)
		*F. Reassess distal circulation, sensation, and motor
		function
6. REASSESS		*A. Assess patient response and level of comfort
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4" cut on top of Left Foot

DRESSINGS AND BANDAGING - OPEN WOUNDS

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

Multiple wounds will be treated as per procedures listed in patient assessment.

Impaled Objects

- *1. Do not remove
- 2. Expose wound
- 3. Control bleeding
- 4. Stabilize with a bulky dressing; criss-cross the layers
- 5. Tie 4in. wide cravats around to hold in place, or tape in place
- *6. Check for exit wound (treat when found)
- 7. Immobilize affected area

Impaled Objects in the Cheek

- *1. Examine; inside & outside
- 2. If end not impaled in mouth pull it out
- 3. Position head for drainage: if spinal injury, immobilize 1st and tilt board
- 4. Dress outside of wound
- *5. Gauze on inside only if patient alert, (Simulate only in contest and state, "I would leave 3-4 inches of gauze outside of mouth.")

2" cut on Palm of Left Hand

DRESSINGS AND BANDAGING - OPEN WOUNDS

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

Multiple wounds will be treated as per procedures listed in patient assessment.

Impaled Objects

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Impaled Objects in the Cheek

- *1. Examine; inside & outside
- 2. If end not impaled in mouth pull it out
- 3. Position head for drainage: if spinal injury, immobilize 1st and tilt board
- 4. Dress outside of wound
- *5. Gauze on inside only if patient alert, (Simulate only in contest and state, "I would leave 3-4 inches of gauze outside of mouth.")

Broken right Radius

SPLINTING UPPER EXTREMITY/LOWER EXTREMITY FRACTURES (AIR SPLINT)

PROC	PROCEDURES		CRITICAL SKILL		
1. CARE FOR FRACTURE	· 🗅	*A.	Assess distal circulation, sensation, and motor		
I. CAR	E FOR FRACTURE			function(fingers/toes)	
			A.	Grasp above and below the injury site	
		0	B,	Maintain support	
			C.	Properly apply air splint	
2. IMMOBILIZE	OBILIZE	0	D.	Splint should be relatively free of wrinkles	
	TURE		E.	Inflate splint to point that slight dent can be	
				made	
			*F.	Reassess distal circulation, sensation, and motor	
				function (fingers/toes)	
			.*A.	Periodically check for increase or decrease in	
				pressure	
3. MONITO	ITOR AIR-		*B.	Monitor pressure in splint with finger tip	
1 -	INFLATED SPLINT	_	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		*A. Stabilize the head and neck	
2. PREPARING THE PATIENT		 A. When placing patient on board place board parallel to the patient 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	0	A. Grasp the patient at the shoulder and pelvis area B. Give instructions to bystander, if used to support	
4. ROLLING THE PATIENT	0 0 0 0	 A. While stabilizing the head, roll the patient toward the rescuer by pulling steadily and evenly at the shoulder and pelvis areas B. The head and neck should remain on the same plane as the torso C. Maintain stability by holding patient with one hand and placing board (if used) with other D. Roll the body as a unit onto the board (if used) (board may be slanted or flat) E. Place the arm alongside the body 	

IMMOBILIZATION – LONG SPINE BOARD (Backboard)

PROCEDURES			CRITICAL SKILL
		1	One First Aid Provider at the head must maintain in-line immobilization of the head
	_	B.]	and spine First Aid Provider at the head directs the
	_	C. (movement of the patient Other First Aid Provider control movement of the rest of body
	_	D. (Other First Aid Provider position themselves on same side
MOVE THE PATIENT ONTO THE LONG		E. 1	Upon command of First Aid Provider at the head, roll patient onto side toward First Aid
SPINE BOARD	0	F. (Providers Quickly assess posterior body, if not already done
		G. 1	Place long spine board next to the patient with top of board beyond top of head
		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
	0	I. S	movement Slide patient into proper position using smooth coordinated moves keeping spine in alignment
2. PAD VOIDS BETWEEN PATIENT AND LONG	_ ·		Select and use appropriate padding Place padding as needed under the head
SPINE BOARD	0		Place padding as needed under torso
3. IMMOBILIZE BODY TO THE LONG SPINE BOARD	0	· i	Strap and secure body to board ensuring spinal mmobilization, beginning at shoulder and working toward feet
4. IMMOBILIZE HEAD	. 🗖		Using head set or place rolled towels on each
TO THE LONG SPINE BOARD	D	В. Т	Tape and/or strap head securely to board, ensuring cervical spine immobilization
5. REASSESS			Reassess distal circulation, sensation, and
	Ö	_	Assess patient response and level of comfort

SHOCK

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

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.