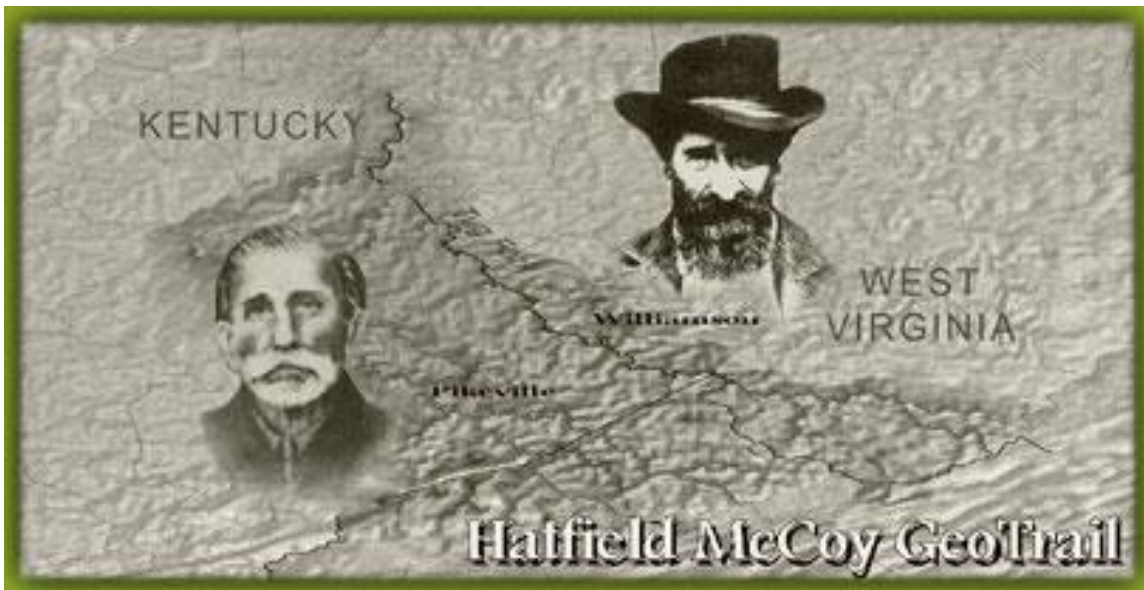


Hatfield & McCoy Mine Safety Competition – First-Aid Contest

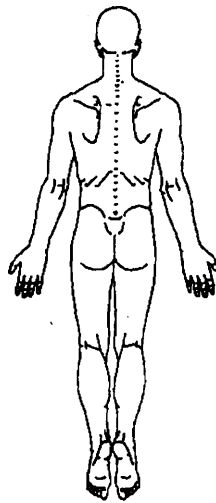
JULY 15, 2014



PROBLEM

Billy is a maintenance person that has been conducting clean-up and service duties on the number one conveyor belt located on the surface of this mine. As he is completing the servicing duties he decides to make a quick observation of the head drive area, just as he begins to go around the head drive the flooring of the walkway breaks away and Billy falls 15 feet to the ground. Please help him and report to dispatch every 10 minutes of your progress and the status of the patient. Treat and Transport.

FIELD LAYOUT



RADIO

**TEAM
MATERIALS**

15'

BILLY

(PUT ON THE BACK)

RESPIRATIONS: 28
PERFUSION: 1 SECOND
MENTAL STATUS: ABLE TO FOLLOW COMMANDS

2" LACERATION ABOVE RIGHT EAR

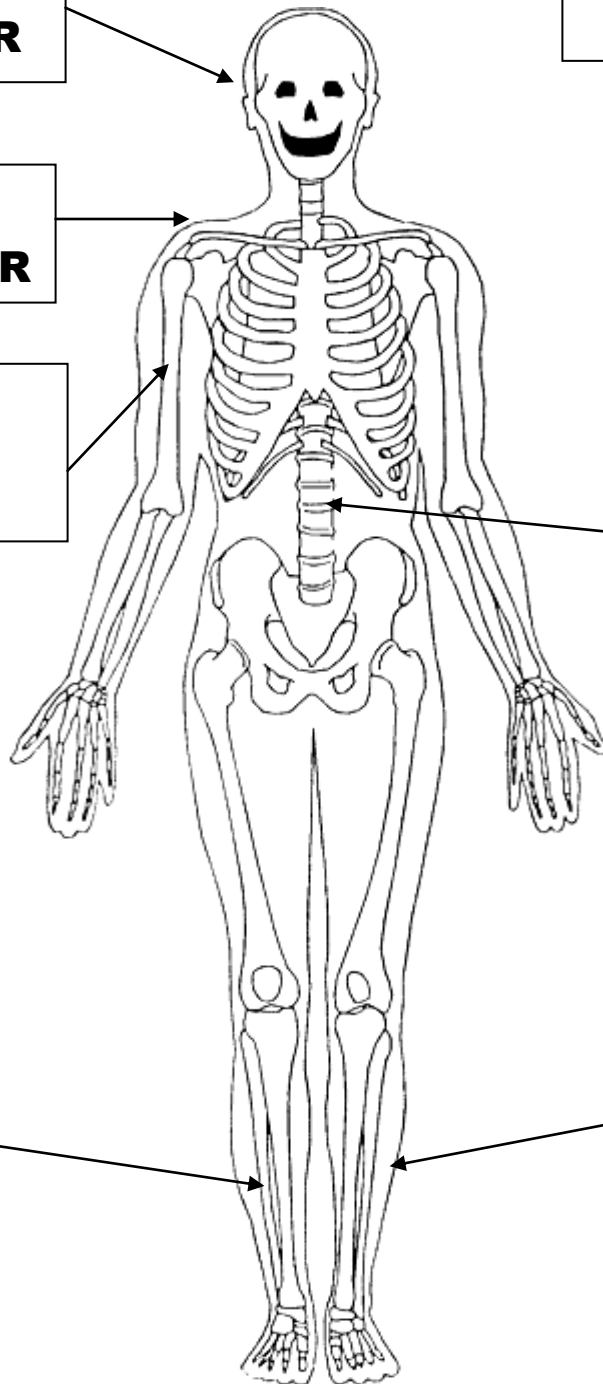
3" LACERATION TOP OF SHOULDER

OPEN MID-SHAFT FRACTURED HUMERUS

T-9 VERTEBRAE CLOSED FRACTURE

OPEN FRACTURE RIGHT FIBULA

CLOSED FRACTURE LEFT TIBIA & FIBULA



LIST OF INJURIES

**2" LACERATION ABOVE
RIGHT EAR**

**T-9 VERTEBRAE
CLOSED FRACTURE**

**3" LACERATION TOP
OF SHOULDER**

**OPEN MID-SHAFT
FRACTURED HUMERUS**

**OPEN FRACTURE
RIGHT FIBULA**

**CLOSED FRACTURE
LEFT TIBIA & FIBULA**

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

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.

Billy is delayed.

**T-9 VERTABRAE
CLOSED FRACTURE**

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

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"/> <input type="checkbox"/>	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	<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"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <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 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
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).

IMMOBILIZATION OF CERVICAL SPINE

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

11. REASSESS	<input type="checkbox"/> <input type="checkbox"/>	* A. Reassess distal circulation, sensation, and motor function * B. Assess patient response and level of comfort
--------------	--	--

CONTINUE WITH PATIENT ASSESSMENT

PATIENT ASSESSMENT

PROCEDURES	CRITICAL SKILL
1. HEAD	<input type="checkbox"/> *A. Check head for DOTS: Deformities, Open wounds, Tenderness and Swelling <input type="checkbox"/> *B. Check and touch the scalp <input type="checkbox"/> *C. Check the face <input type="checkbox"/> *D. Check the ears for bleeding or clear fluids <input type="checkbox"/> *E. Check the eyes for any discoloration, unequal pupils, reaction to light, foreign objects and bleeding <input type="checkbox"/> *F. Check the nose for any bleeding or drainage <input type="checkbox"/> *G. Check the mouth for loose or broken teeth, foreign objects, swelling or injury of tongue, unusual breath odor and discoloration

2" LACERATION ABOVE RIGHT EAR

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"/> <input type="checkbox"/>	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.

CONTINUE PATIENT ASSESSMENT

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. 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)
-----------	--	---

5. LEGS	L	R	*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
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

OPEN FRACTURE RIGHT FIBULA

DRESSINGS AND BANDAGING - OPEN WOUNDS

PROCEDURES		CRITICAL SKILL
4. 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
5. 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
6. 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.

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

PROCEDURE	CRITICAL SKILL
1. DETERMINE NEED FOR SPLINTING	<input type="checkbox"/> *A. Assess for: <ul style="list-style-type: none"> ▪ Pain ▪ Swelling ▪ Deformity <input type="checkbox"/> B. Determine if splinting is warranted
2. APPLY MANUAL STABILIZATION	<input type="checkbox"/> A. Support affected limb and limit movement <ul style="list-style-type: none"> ▪ Do not attempt to reduce dislocations
3. SELECT APPROPRIATE SPLINT	<input type="checkbox"/> A. Select appropriate splinting method depending on position of extremity and materials available <input type="checkbox"/> B. Select appropriate padding material
4. PREPARE FOR SPLINTING	<input type="checkbox"/> A. Remove or cut away clothing as needed <input type="checkbox"/> *B. Assess distal circulation, sensation, and motor function <input type="checkbox"/> C. Cover any open wounds with sterile dressing and bandage <input type="checkbox"/> D. Measure splint <input type="checkbox"/> E. Pad around splint for patient comfort

CLOSED FRACTURE LEFT TIBIA & FIBULA

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

PROCEDURE	CRITICAL SKILL
1. DETERMINE NEED FOR SPLINTING	<input type="checkbox"/> *A. Assess for: <ul style="list-style-type: none"> ▪ Pain ▪ Swelling ▪ Deformity <input type="checkbox"/> B. Determine if splinting is warranted
2. APPLY MANUAL STABILIZATION	<input type="checkbox"/> A. Support affected limb and limit movement <ul style="list-style-type: none"> ▪ Do not attempt to reduce dislocations
3. SELECT APPROPRIATE SPLINT	<input type="checkbox"/> A. Select appropriate splinting method depending on position of extremity and materials available <input type="checkbox"/> B. Select appropriate padding material
4. PREPARE FOR SPLINTING	<input type="checkbox"/> A. Remove or cut away clothing as needed <input type="checkbox"/> *B. Assess distal circulation, sensation, and motor function <input type="checkbox"/> C. Cover any open wounds with sterile dressing and bandage <input type="checkbox"/> D. Measure splint <input type="checkbox"/> E. Pad around splint for patient comfort <input type="checkbox"/> F. Maintain support while splinting.

CONTINUE PATIENT ASSESSMENT

6. ARMS	L	R	
	<input type="checkbox"/>	<input type="checkbox"/>	*A. Check each arm for DOTS
	<input type="checkbox"/>	<input type="checkbox"/>	B. Inspect arms for injury by touch
	<input type="checkbox"/>	<input type="checkbox"/>	C. Unresponsive: Check arms for paralysis (pinch inner side of wrist)
	<input type="checkbox"/>	<input type="checkbox"/>	*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?")
	<input type="checkbox"/>	<input type="checkbox"/>	*E. Check for medical ID bracelet

3" LACERATION TOP OF SHOULDER

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.

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

OPEN MID-SHAFT FRACTURED HUMRUS

DRESSINGS AND BANDAGING - OPEN WOUNDS

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

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"> ▪ Do not attempt to reduce dislocations (if applies)
2. IMMOBILIZING FRACTURE	<input type="checkbox"/> A. Selection of appropriate rigid splint of proper length <input type="checkbox"/> B. Support affected limb and limit movement <input type="checkbox"/> C. Apply appropriate padded rigid splint against injured extremity <input type="checkbox"/> D. Place appropriate roller bandage in hand to ensure the position of function <input type="checkbox"/> E. Secure splint to patient with roller bandage, handkerchiefs, cravats, or cloth strips <input type="checkbox"/> F. Apply wrap distal to proximal <input type="checkbox"/> *G. Reassess distal circulation, sensation, and motor function

7. ABDOMEN	<input type="checkbox"/>	*A. Check abdomen (stomach) for DOTS
------------	--------------------------	--------------------------------------

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

8. BACK SURFACES	<input type="checkbox"/>	*A. Check back for DOTS
------------------	--------------------------	-------------------------

SHOCK

PROCEDURES		CRITICAL SKILL
1. CHECK FOR SIGNS AND SYMPTOMS OF SHOCK	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*A. Check for pale (or bluish) skin (in victim with dark skin examine inside of mouth and nail beds for bluish coloration). *B. Check for cool, clammy skin *C. Check for weakness
2. TREATMENT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Keep victim lying down 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) C. Elevate according to injury D. Reassure and calm the 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.

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.**

NOTE: The team will need to lift the patient to simulate transport.