

SECTION II

2007

FIRST

AID

RULES

2007 FIRST AID CONTEST RULES

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Section II

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RULES GOVERNING THE 2007 NATIONAL FIRST AID CONTEST

1. Members of First Aid Teams must be bona fide employees of the mining industry. Teams shall furnish their own recording manikin, and all other materials listed in G Miscellaneous.
2. A team shall consist of two members and a patient. A team may use the same patient for multiple teams. The Contest Director must be notified when a patient will be used for multiple teams. Bystander(s) may only assist in supporting, lifting, or moving the patient. If the problem requires a bystander(s), they will be provided. Bystander(s) will be positioned at the field and will be identified as a bystander with labels or name tags. A team shall work two problems and the scores shall be combined to determine the team's final standings.
3. Each team entering the contest will draw a number to determine the order of the performance at the time of registration. Teams sharing equipment must notify the registrar upon registration, so that these teams will not be working at the same time and enough time is allowed for inspection of equipment prior to second team using the equipment.
4. Each participating team must be under guard before the start of the contest. Any team or team member receiving information concerning a contest problem prior to arriving at the working area will, be disqualified by the Chief Judge and Director.
5. No practicing will be allowed on the field before the beginning of the Contest. No reference books or training material will be permitted in the working area during the working or reading of the problems.
6. Only designated officials will be allowed to communicate with teams while teams are working.
7. All Procedures shall be performed in the order listed in the 2007 National First Aid Rules, Contest Skill Sheets, **Brady First Responder seventh Edition, by Bergeron, Bizjak, Krause, and Le Baudour, and Interpretations of the Discount Card** (any prudent treatment can be used). The First Aid Rules and skill sheets supersede the Brady First Responder Text.
8. Contest officials will designate spaces (15 feet by 15 feet - minimum) for teams to work. All equipment (except manikin) will be kept behind a baseline

designated by a Contest Official. All problems will be worked in the designated area which shall contain only the judges and the contesting teams. The manikin will be located within the designated space.

9. All team members and patient shall be dressed alike. Shoes need not be identical. The patient may wear shorts even if the team members are wearing pants. The pants and shorts shall be the same color.
10. Upon entering the Contest field, the team will introduce themselves to the judges.
11. The Timekeepers shall explain to the team the timing devices used. Judges will require a signature and team number on the sample CPR tape at this time. (Check shallow breaths, deep and shallow compressions, and wrong hand position.)
12. Problems will be kept in unsealed envelopes, retained by the judges, and given to the team after the timing device has been started. The patient may place himself/herself in the required position, or the judges may place the patient in the required position as stated in the problem to be worked.
 - a. The team's material (jump kits, splints, etc.) may not be assembled in the designated area until after the timing device is started, except for the manikin which may be placed in the designated area.
 - b. The working time for a problem will start when the team starts the timing device.
 - c. Team members must don protective equipment after starting the timing device, but prior to patient contact (gloves, masks and eye protection - eyeglasses are acceptable).

A barrier device must be used when contacting manikin. The face masks/shields may be removed when the team is required to give artificial ventilation, CPR, inflating splints, etc.

13. Injuries/conditions requiring treatment will be identified by cards, envelopes or labels attached to the patient at or as near the location of the injury as possible on the outside of the clothing, be identified by simulated wounds, or be in the reading of the problem. Wounds that are listed in the reading of the problem shall also be placed on patient. (Exception: If the wound is on the eyelid or an impaled object in the eye, the label will NOT be placed on the eye, but in an obvious area near the eye.)

During the detailed physical exam, teams may find an envelope attached to the patient which contains patient information that needs immediate attention. Upon completion of treatment of these conditions, patient assessment will be resumed at the point where team left off. The patient will already be marked upon arrival of the team.

Since spinal stabilization must be taken as outlined in Patient Assessment, spinal injuries will be stated in the reading of the problem and not marked on the patient. Life-threatening bleeding and sucking chest wound shall be stated in the reading of the problem and shall be marked on the patient.

14. Lettering on the cards and/or labels will be at least 1/4-inch in height.

Example: **2-INCH WOUND ON FOREHEAD**

15. The problem will end and teams will stop the timing device when all conditions have been located, treated, and work area has been cleaned. The timekeeper/judge must time the problem in minutes and seconds and consult with the team upon completion of the problem to verify the time.
16. After stopping the timing device, the team will inform the judges that the patient is ready for inspection. Team members will remain with the patient until released by the judges.
17. The calculated time will be determined by Contest Officials by averaging the working time of all teams participating in the Contest (1 discount per 3 minute overtime or fraction thereof).

A. Ties

In the event of ties in the contest, Scorecard A (First Aid Procedures and Critical Skills) discounts will be the first tie breaker, Scorecard B (AV/CPR) discounts will be the second tie breaker and actual working time, in minutes and seconds, of the team will be the third tie breaker.

B. Miscellaneous

Teams will have 30 minutes, after being notified to report to Final Appeals. Once notified, team members and the trainer shall have 20 minutes for reviewing the judges skill sheets and scorecards to prepare any protest. All protests shall be in writing and shall state the discount in question, the scorecard involved, and their

reference proof in the rule book to support their protest or the protest will not be considered. All protests will be considered by the Final Appeals Committee. A decision by the Final Appeals Committee is binding and final. Protest sheets will be furnished to the teams by the Judges for the recording of rules infractions or discounts assessed to teams. Judges shall remain available until released.

MATERIALS LIST

Participants will be required to furnish their own materials. Teams must provide the minimum equipment. Listed below is the minimum equipment required.

- 24 Triangular Bandages
- 6 Adhesive compresses
- 24 Sterile gauze, (4"x4") and/or 4" Compresses
- 6 Roller Bandages
- 2 Blankets
- 1 Scissors, EMT Utility
- 6 Pairs of Examination Gloves
- 2 Mask/face shields or masks and goggles combination meeting blood borne pathogen requirements
- 2 Heat Pack - Simulated
- 2 Cold packs - Simulated
- 2 Oval Eye Pads
- 1 Pen and paper set
- 1 Elevating device
- 1 Recording manikin
- 2 Barrier devices with one-way valve for performing AV/CPR
- 1 White bag (i.e. plastic garbage bag)
- 1 Compliment of splints (may be pre-padded but not assembled)
- 1 Long back board with straps (Aluminum, Wood, etc.)
- 2 Air splints (1 full arm and 1 full leg)
- 1 Packet Sugar/Tube Instant Glucose (for Diabetic Purposes)
- 1 Adhesive Tape
- 1 Burn Sheet, Sterile (56" X 96")
- 1 Rigid Extrication Collar
- 4 Trauma Dressings (minimum of 10" X 30")
- 1 Eye Shield/Cup
- 1 Pen Light
- 2 Tourniquets
- 2 Towels
- 1 Pillow

- 1 Occlusive Dressing
 - 2 Sticks, Wooden Dowels or equivalent
 - 1 Watch/Timing Device
 - 1 Headset (long spine board)
- Compliment of Straps for Long Spine Board (buckle straps, spider straps, etc.)

Problems will be designed from the Revised Skill Sheets approved by the Rules Committee. Improvising will be acceptable if the equipment supply has been exhausted or equipment is not available.

Team members must state the proper sequence, as well as perform each physical skill.

Manikins will be furnished by teams for performing procedures and critical skills pertaining to all ventilation problems, cardiac arrest problems. Signal boxes on manikins will be covered during the working of the problem. NOTE: Live patients will **not** be used in any CPR or ventilation problems.

Under no circumstances will videotape recordings or photos be introduced as supplementary material for consideration of the appeal.

SCORECARD A DISCOUNTS

- 1. Violations of general rules not covered on scorecards. ___5 for each infraction
- 2. All life-threatening conditions shall be located and started before Detailed Physical Examination can begin. ___ 20

Detailed Physical Examination can begin after all life-threatening conditions have been located and treatment started. (Example: sucking chest wound and bleeding) Environmental and Medical Emergencies can be treated anytime during Detailed Physical Examination.

- 3. When the team encounters life-threatening bleeding, no work other than controlling bleeding and dressing the wound shall be done until bleeding is controlled. Bleeding is controlled when the final dressing for that wound is secure unless otherwise stated by the Judge. If no cover dressing is required, bleeding is controlled when the bandage is secure. If treatment has been started and one team member can complete that treatment, the other team member may continue to work. ___10 for each infraction

4. During the course of the problem, teams may encounter a card, envelope or label stating various conditions. Upon completion of treatment of these conditions, resume patient assessment at the point where team left off. _____5 for each infraction
5. Patient cannot talk, direct, or assist unless stated in the problem. (Reactionary or unintentional movements by the patient should not be discounted) ____ 5 for each infraction
6. The bystander must be shown the correct method of support. ____ 2

The bystander must be shown the correct method of support and maintaining the open airway by a team member or members any time during the working of the problem, but before taking support.

7. Handling of a patient by a team or team member in such a manner that could compromise condition of the patient. Examples: Mishandling extremities, etc.) _____ 5 for each infraction
8. All injuries and/or conditions shall be treated (example: wound, fracture, frostbite). ____20 for each infraction
9. Preassembly of material. ____5
10. Failure to perform a required critical skill. Each CRITICAL SKILL shall be performed as identified on the skill sheets. ____2 for each infraction
11. During the Detailed Physical Examination, failure to verbally state the location physically examined and each condition found. ____1 for each infraction
12. Working out of order (assessment, procedure, critical skill). ____2

Teams will systematically conduct the Detailed Physical Examination according to procedure number seven of the patient assessment skill sheet. Each area of the body shall be examined in its entirety prior to treating injuries in that area (except taking support). All injuries must be treated on the area being examined prior to moving to the next area to be examined. The sling for fractured ribs may be applied after upper extremity has been surveyed/treated. However, if treatment has been started and can be completed by one team member (except injuries requiring a backboard), the other team member may continue the examination to the next area and begin treatment. (Systemically, legs are treated before the arms.

13. Failure to follow written instructions. ____5

14. Failure to treat or improper treatment of shock. ____5

Prior to stopping the timing device the patient must be treated for shock, as outlined in the skills sheet.

15. Teams shall not pad around the head and neck of the patient, for a suspected spinal injury, before the patient is placed onto the backboard. ____ 1

16. Teams shall tuck the tails of all bandages. ____1 (discount only one (1) point regardless of the number of tails of bandages not tucked)

17. All material (except manikin) shall be placed behind baseline prior to stopping the timing device. After completing the problem the work area shall be cleaned of ALL material (except manikin), including the infectious waste, which shall be placed in a white trash bag provided by the team. When all materials have been placed behind baseline, a team member shall stop the timing device. The judges and First Aid team will verify the working time upon completion of the problem. ____1

18. Protective equipment must be donned after starting the timing device but prior to patient contact (gloves, masks, and eye protection - eyeglasses are acceptable). _____5 for each infraction

19. Gloves shall be changed if there would be contamination because of a glove tear or due to other contamination. For contest purposes only, gloves must be changed if there would be provider contamination because of a glove tear or change of patient. ____2 for each infraction

20. The broken-back board splint may be preassembled and padded. Other splints may be prepped but not assembled. (Cravat bandages cannot be preassembled on the back board, except for tying padding.) ____5

21. Failure to take support of a fracture or dislocation (not supporting fracture or dislocation). _____10

22. Support of fractures and/or dislocations shall not be broken or released. ____5

When changing support, if support is broken, this discount applies. Change of support can be done as many times as the team desires provided the support is not broken.

Support for upper extremity fractures/dislocations shall be maintained until the sling is completed. Discount if support of fracture and/or dislocation is released by support person before sling is completed.

23. Fractures shall be supported prior to bandaging injuries. Once the extremity has been assessed, fractures must be supported prior to bandaging injuries on the extremity. ___5

During the Detailed Physical Examination, except for fractures of ribs, nose, and jaw, or dislocations of the fingers, toes, or jaw, teams must physically support/stabilize fractures and dislocations as they are found. When the fracture/dislocation is on an extremity and support has been taken, the team must complete the examination on the extremity treating other injuries prior to splinting the fracture/dislocation.

24. Treatment of injury shall be at proper location (example: treating right hand rather than left hand). ___5
25. Not applying sling for upper extremity wound. ___1

Triangular slings are required for all wounds of upper extremities, including shoulder and armpit wounds. Slings will not be required for upper extremity burns. However, if a burn and wound and/or fracture/dislocation are present on the same upper extremity, a sling shall be applied. Slings will be applied on upper extremities with injuries after all injuries of the extremity have been treated.

26. Support for upper extremity fractures/dislocations shall be maintained until the sling is completed. Discount if support of fracture and/or dislocation is released by support person before sling is completed. ___3
27. Failure to determine high priority patients. ___10

A high priority patient shall be transported immediately. This presents a load and go situation. High priority conditions include a poor general impression, unresponsiveness, breathing difficulties, severe bleeding or shock, chest pain, and any severe pain.

**INTERPRETATIONS OF SCORECARD B
ARTIFICIAL VENTILATION/CARDIOPULMONARY RESUSCITATION**

1. Failure to determine unresponsiveness (according to Critical Skill Sheet). ___1
2. Failure to call for help. ___1
3. Failure to open airway. ___1
4. Failure to use proper maneuver to open airway (using head-tilt/chin-lift maneuver when jaw-thrust should be used, vice versa). ___1
5. Failure to assess breathlessness in 10 seconds. ___1
6. Failure to use one-way valve barrier device when ventilating manikin. ___1
7. Failure to give initial 2 breaths. ___1
 - a. Volume shall be at least .8 liters (through .7 liter line on new manikins).___1
8. Failure to use mouth-to-nose ventilation when required. ___1
9. Failure to keep body and head in line, if spinal injury exists. ___1
10. Failure to use tongue jaw lift, cross-finger technique, or finger sweep when required. ___1
11. Failure to reposition head when airway obstruction is suspected. ___1
12. Failure to give abdominal thrusts or chest thrusts when required. ___1
13. Failure to check pulse prior to giving compressions. ___1
14. Failure to assess pulse for 5-10 seconds. ___1
15. Failure to correctly locate the carotid pulse. ___1
16. Failure to verbalize absence of pulse. ___1

Cardiopulmonary Resuscitation

1. Failure to give AV/CPR when required. ___20
2. Failure to locate landmark for giving compressions. ___1
3. Failure to make parallel axis with heels of hands. ___1
4. Allowing fingers to rest on chest. ___1
5. Compressions. Discounts shall apply to each set.
 - a. Timing. 30 compressions shall be delivered within 23 seconds. ___1
 - b. Depth. Compression depth shall be between the two lines for 60-80 pounds pressure. ___1
 - c. Number required. A total of 30 compressions shall be made each cycle. ___1
 - d. Release of upstroke. The release line shall be straight. ___1
 - e. Rate. Compressions shall be made at the rate of 100 per minute. ___1
6. Failure to maintain hand contact with manikin when releasing pressure during compressions. ___1
7. Failure to give 2 breaths between each cycle of compressions. ___1
 - a. Timing (not completing breaths and returning to compressions in 4-7 seconds (peak of last downstroke to peak of second ventilation). ___1
 - b. Volume shall be at least .8 liters (through .7 liter line on new manikins). ___1
8. Failure to give 5 cycles of 30 compressions and 2 breaths for each set of CPR (point of first downstroke to peak of last breath). (A cycle is 30 compressions and two (2) ventilations. A set is 5 cycles.) ___1
9. Failure to assess pulse within 10 seconds after 1st two minutes of CPR. ___1
10. Failure to reassess pulse at least once after two minute assessment. ___1
11. Failure to give five (5) abdominal thrusts when airway obstruction is suspected. ___1
12. Failure to perform CPR as stated in the problem. Too many or too few compressions can be detrimental to patient. ___1
13. Failure for the number of Rescuer/Rescuers to perform CPR as stated in the problem. Team performing One-Person CPR when Two-Person CPR is

required and vice versa. ___ 3 (When problem states “Two-Rescuer CPR”, two people are required to perform CPR as listed in Two-Rescuer CPR skill sheets.)

14. Failure to begin with compressions after pulse check is completed or when changing rescuers. ___1
15. Failure of rescuers to change positions in 5 seconds or less when performing two-person CPR. ___1
16. Failure of rescuer to make final pulse check when CPR is completed. ___1
17. Failure of rescuer to state that patient has a pulse when CPR is completed. ___1

Artificial Ventilation

1. Failure to give artificial ventilation. _____ 20
2. Failure to give 10-12 breaths in each 58-62-second period. ___1
3. Failure to provide a breath volume of at least .8 liters (through .7 liter line on new manikins)._____ 1
4. Failure of rescuer to check for return of breathing and pulse when artificial ventilation is completed. ___1
5. Failure of rescuer to state that patient is breathing and has a pulse when artificial ventilation is completed. ___1

PATIENT ASSESSMENT

PROCEDURES	CRITICAL SKILL
1. SCENE SIZE UP	<ul style="list-style-type: none"> A. Observe area to ensure safety B. Call for help
2. MECHANISM OF INJURY	<ul style="list-style-type: none"> A. Determine causes of injury, if possible B. Ask patient (if conscious) what happened
3. INITIAL ASSESSMENT	<ul style="list-style-type: none"> 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 threats
4. ASSESS AIRWAY AND BREATHING	<ul style="list-style-type: none"> A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver, depending on the presence of cervical spine (neck) injuries B. Look, listen, and feel for breathing (3-5 seconds) C. If present, treat sucking chest wound
5. ASSESS FOR IMMEDIATE LIFE THREATENING CONDITIONS	<ul style="list-style-type: none"> A. Check for presence of a carotid pulse (5-10 seconds) B. If present, control life threatening bleeding
6. DETERMINE PRIORITY OF PATIENT	<ul style="list-style-type: none"> A. Teams must make statement to judge, "Will transport as soon as possible" B. Teams must make statement to judge, "Removing clothing, exposing and cleaning wound surface(s)"
7. DETAILED PHYSICAL EXAMINATION ASSESS: (a) HEAD	<p>ENVIRONMENTAL AND MEDICAL EMERGENCIES CAN BE TREATED ANY TIME DURING DETAILED PHYSICAL EXAMINATION</p> <ul style="list-style-type: none"> 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, discoloration

(b) NECK	<ul style="list-style-type: none"> A. Check the neck for DOTS B. Inspect for medical ID
(c) CHEST	<ul style="list-style-type: none"> 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
(d) ABDOMEN	<ul style="list-style-type: none"> A. Check abdomen (stomach) for DOTS
(e) PELVIS	<ul style="list-style-type: none"> A. Check pelvis for DOTS B. Inspect pelvis for injury by touch (Verbally state inspection of crotch and buttocks areas)
(f) LEGS	<ul style="list-style-type: none"> A. Check each leg for DOTS B. Inspect legs for injury by touch C. Check legs for paralysis (pinch inner side of leg on calf) D. Check legs for motion (in a conscious patient; team places hand on bottom of each foot and states "Can you push against my hand?") E. Check for medical ID bracelet
(g) ARMS	<ul style="list-style-type: none"> A. Check each arm for DOTS B. Inspect arms for injury by touch C. Check arms for paralysis (pinch inner side of wrist) D. 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
(h) BACK SURFACES	<ul style="list-style-type: none"> A. Check back for DOTS

DOTS: Deformities, Open Wounds, Tenderness and Swelling

****NOTE:** Each critical skill 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.

ONE-PERSON CPR (MANIKIN ONLY)

PROCEDURES	CRITICAL SKILL
1. ESTABLISH UNRESPONSIVENESS	<ul style="list-style-type: none"> A. Tap or gently shake shoulders B. Shout, "Are you OK?" C. Determine unconsciousness without compromising possible cervical spine (neck) injury D. Say aloud, "Call for help"
2. ESTABLISH AIRWAY	<ul style="list-style-type: none"> A. Kneel at the patient's side near the head B. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of cervical spine injuries
3. MONITOR PATIENT FOR BREATHING	<ul style="list-style-type: none"> A. Look, listen, and feel for breathing (3-5 seconds)
4. VENTILATION PATIENT	<ul style="list-style-type: none"> A. Place barrier device (pocket mask/shield with one-way valve) on manikin B. Give 2 breaths 1 second each C. Each breath - minimum of .8 liters (through .7 liter line on new manikins)
5. PULSE CHECK	<ul style="list-style-type: none"> 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 muscle in the neck B. Check for presence of carotid pulse for 5 to 10 seconds C. Verbalize absence of pulse
6. POSITION FOR COMPRESSIONS	<ul style="list-style-type: none"> A. Locate the compression point on the breastbone between the nipples B. Place the heel of one hand on the compression point and the other hand on top of the first so hands are parallel C. Do not rest fingers on the chest D. Keep heel of your hand on chest during and between compressions

7. DELIVER CARDIAC COMPRESSION	<ul style="list-style-type: none"> A. Give 30 compressions B. Compressions are at the rate of 100 per minute (30 compressions delivered within 23 seconds) C. Downstroke for compression must be on or between compression lines D. Return to baseline on upstroke of compression
8. VENTILATIONS BETWEEN COMPRESSIONS	<ul style="list-style-type: none"> A. Give 2 breaths 1 second each B. Each breath - minimum of .8 (through .7 liter line on new manikins) C. Complete breaths and return to compressions in 4-7 seconds (This will be measured from the end of last downstroke to the start of the first downstroke of the next cycle.)
9. CONTINUE CPR FOR TIME STATED IN PROBLEM	<ul style="list-style-type: none"> A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths B. To check for pulse, stop chest compressions for 5-10 seconds after the first minute of CPR C. Rescuer opens airway and looks, listens, and feels for adequate breathing or coughing D. Rescuer checks for a carotid pulse E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation every three minutes. 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 downstroke to the start of the first downstroke of the next cycle)
10. CHECK FOR RETURN OF PULSE	<ul style="list-style-type: none"> A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) B. State "Patient has a pulse."

TW0-RESCUER CPR (NO SPINAL INJURY - MANIKIN ONLY)

PROCEDURES	CRITICAL SKILL
1. RESCUER 1 ESTABLISH UNRESPONSIVENESS	A. Tap or gently shake shoulders B. Shout, "Are you OK?" C. Determine unconsciousness without compromising cervical spine (neck) injury D. Say aloud, "Call for help"
2. RESCUER 1 - ESTABLISH AIRWAY	A. Kneel at the patient's side near the head B. Correctly execute head-tilt/chin-lift maneuver
3. RESCUER 1 - MONITOR PATIENT FOR BREATHING	A. Look, listen, and feel for breathing (3-5 seconds)
4. RESCUER 1 - VENTILATE PATIENT	A. Place barrier device (pocket mask/shield with one-way valve) on manikin B. Give 2 breaths 1 second each C. Each breath - minimum of .8 (through .7 liter line on new manikins)
5. RESCUER 1 - CHECK FOR CAROTID PULSE	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 B. Check for presence of carotid pulse for 5 to 10 seconds C. Verbalize absence of pulse
6. RESCUER 2 - POSITION FOR COMPRESSIONS	A. Locate the compression point on the breastbone between the nipples B. Place the heel of one hand on the compression point and the other hand on top of the first so hands are parallel C. Do not rest fingers on the chest Keep heel of your hand on chest during and between compressions

<p>7. RESCUER 2 - DELIVER CARDIAC COMPRESSION</p>	<p>A. Give 30 compressions B. Compressions are at the rate of 100 per minute (30 compressions delivered within 23 seconds) C. Downstroke for compression must be on or between compression lines D. Return to baseline on upstroke of compression</p>
<p>8. RESCUER 1 - VENTILATIONS BETWEEN COMPRESSIONS</p>	<p>A. Give 2 breaths 1 second each B. Each breath - minimum of .8 (through .7 liter line on new manikins) C. Complete breaths and return to compressions in 4-7 seconds (This will be measured from the end of last downstroke to the start of the first downstroke of the next cycle.)</p>
<p>9. CONTINUE CPR FOR TIME STATED IN PROBLEM</p>	<p>A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths B. To check for pulse, stop chest compressions for 5-10 seconds after the first set of CPR C. Rescuer at patient's head maintains airway and looks, listens, and feels for adequate breathing or coughing D. The rescuer at the patient's head shall feel for a carotid pulse E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation every three minutes 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 downstroke to the start of the first downstroke of the next cycle)</p>
<p>10. CHANGING RESCUERS</p>	<p>A. Change of rescuers shall be made in 5 seconds or less and will be completed as outlined in the problem. Team must switch every 5 cycles in less than 5 seconds.</p>
<p>11. CHECK FOR RETURN OF PULSE</p>	<p>A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) B. State "Patient has a pulse."</p>

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

PROCEDURES	CRITICAL SKILL
1. RESCUER 1 - ESTABLISH UNRESPONSIVENESS	<ul style="list-style-type: none"> A. Tap or gently shake shoulders B. Shout, "Are you OK?" C. Determine unconsciousness without compromising cervical spine (neck) injury D. Say aloud, "Call for help"
2. RESCUER 2 - ESTABLISH AIRWAY	<ul style="list-style-type: none"> A. Kneel at the patient's head B. Correctly execute jaw thrust maneuver
3. RESCUER 1 - MONITOR PATIENT FOR BREATHING	<ul style="list-style-type: none"> A. Look, listen, and feel for breathing (3-5 seconds)
4. RESCUER 2 - VENTILATE PATIENT	<ul style="list-style-type: none"> A. Rescuer 1 should place 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 the device over the mouth and nose.) (OPTION 2: Rescuer 1 can place the device on the Manikin each time patient is ventilated) B. Rescuer 2 gives 2 breaths 1 second each C. Each breath - minimum of .8 (through .7 liter line on new manikins)
5. RESCUER 1 - CHECK FOR CAROTID PULSE	<ul style="list-style-type: none"> 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 B. Check for presence of carotid pulse for 5 to 10 seconds C. Verbalize absence of pulse
6. RESCUER 1 - POSITION FOR COMPRESSIONS	<ul style="list-style-type: none"> A. Locate the compression point on the breastbone between the nipples 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 C. Do not rest fingers on the chest Keep heel of your hand on chest during and between compressions

7. RESCUER 1 - DELIVER CARDIAC COMPRESSION	<ul style="list-style-type: none"> A. Give 30 compressions B. Compressions are at the rate of 100 per minute (30 compressions delivered within 23 seconds) C. Downstroke for compression must be on or between compression lines D. Return to baseline on upstroke of compression
8. RESCUER 2 - VENTILATIONS BETWEEN COMPRESSIONS	<ul style="list-style-type: none"> A. Give 2 breaths 1 second each B. Each breath - minimum of .8 (through .7 liter line on new manikins) C. Complete breaths and return to compressions in 4-7 seconds (This will be measured from the end of last downstroke to the start of the first downstroke of the next cycle.)
9. CONTINUE CPR FOR TIME STATED IN PROBLEM	<ul style="list-style-type: none"> A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths B. To check pulse, stop chest compressions for 10 seconds after the first set of CPR C. Rescuer at patient's head maintains airway and looks, listens, and feels for adequate breathing or coughing D. The rescuer giving compressions shall feel for a carotid pulse E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation every three minutes 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 downstroke to the start of the first downstroke of the next cycle)
10. CHANGING RESCUERS	<ul style="list-style-type: none"> 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.
11. CHECK FOR RETURN OF PULSE	<ul style="list-style-type: none"> A. A final pulse check (3-5 seconds) will be required at the end of the last set of CPR B. State "Patient has a pulse."

MOUTH-TO-MASK RESUSCITATION

PROCEDURES	CRITICAL SKILL
1. ESTABLISH UNRESPONSIVENESS	<ul style="list-style-type: none"> A. Tap or gently shake shoulders B. Shout, "Are you OK?" C. Determine unconsciousness without compromising C-spine injury D. Say aloud, "Call for help"
2. ESTABLISH AIRWAY	<ul style="list-style-type: none"> A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries
3. MONITOR PATIENT FOR BREATHING	<ul style="list-style-type: none"> A. Look, listen, and feel for breathing (within 10 seconds)
4. VENTILATE PATIENT	<ul style="list-style-type: none"> A. Place barrier device (pocket mask/shield with one-way valve) on manikin B. Ventilate patient 2 times at 1 second intervals each - minimum of .8 (through .7 liter line on new manikins)
5. CHECK FOR CAROTID PULSE	<ul style="list-style-type: none"> A. Correctly locate the carotid pulse (on the side of the rescuer) B. Check for presence of carotid pulse within 10 seconds C. Verbalize presence of pulse
6. VENTILATE PATIENT	<ul style="list-style-type: none"> A. Place barrier device (pocket mask/shield with one-way valve on manikin 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)
7. CHECK FOR RETURN OF BREATHING AND PULSE	<ul style="list-style-type: none"> A. After providing the required number of breaths (outlined in problem), check for return of breathing and carotid pulse within 10 seconds B. State "Patient is breathing and has a pulse"

**AIRWAY OBSTRUCTION (MANIKIN ONLY)
(VICTIM LOSES CONSCIOUSNESS)**

PROCEDURE	CRITICAL SKILL
1. POSITIONING VICTIM AFTER LOSS OF CONSCIOUSNESS	<ul style="list-style-type: none"> A. Place victim in supine position (on their back) B. Say aloud, "Call for help"
2. PERFORM FINGER SWEEPS	<ul style="list-style-type: none"> A. Follow with opening mouth and finger sweep (Open mouth, grasping tongue and lower jaw with thumb and fingers, insert index finger of other hand down along inside cheek and deeply into throat in a hooking action) B. Grasp and remove foreign object if dislodged
3. OPEN AIRWAY	<ul style="list-style-type: none"> A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries
4. ATTEMPT VENTILATIONS	<ul style="list-style-type: none"> A. Place barrier device on manikin B. Seal mouth and nose C. Attempt to give slow full breath D. If successful, deliver second slow full breath and check pulse E. If unsuccessful, continue sequence
5. DELIVER ABDOMINAL THRUST	<ul style="list-style-type: none"> A. Straddle the victim's thighs B. Place heel of one hand against the victim's abdomen, in midline slightly above the navel and well below Xiphoid (point where ribs attach to the lower part of the breastbone) C. Place second hand on top of the first D. Deliver quick upward thrust E. Each thrust administered with intent of relieving obstruction F. Deliver 5 thrusts
6. PERFORM FINGER SWEEP	<ul style="list-style-type: none"> A. Follow with opening mouth and finger sweep (open mouth, grasping tongue and lower jaw with thumb and fingers, insert index finger of other hand down along inside cheek and deeply into throat in a hooking action) B. Grasp and remove foreign object if dislodged

7. ATTEMPT VENTILATIONS	<ul style="list-style-type: none"> A. Place barrier device on manikin B. Correctly make effort to administer slow full breath C. If successful, deliver second slow full breath and check pulse D. If unsuccessful, continue sequence
8. REPEAT SEQUENCE UNTIL SUCCESSFUL	<ul style="list-style-type: none"> A. Demonstrate ability to rapidly repeat sequence 1-7
9. ESTABLISH AIRWAY	<ul style="list-style-type: none"> A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries B. Look, listen, and feel for the presence of breathing (within 10 seconds)
10. RE-EVALUATION OF PATIENT	<ul style="list-style-type: none"> A. Determine the need to repeat the sequence B. Cease at the direction of the judge

AIRWAY OBSTRUCTION (UNCONSCIOUS VICTIM - WITNESSED)

PROCEDURE	CRITICAL SKILL
1. INITIALLY ASSESS LEVEL OF CONSCIOUSNESS	<ul style="list-style-type: none"> A. Tap or gently shake shoulders B. Shout, "Are you OK?" C. Determine unconsciousness without compromising C-spine injury D. Say aloud, "Call for help"
2. ESTABLISH AIRWAY	<ul style="list-style-type: none"> A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries
3. MONITOR PATIENT FOR BREATHING	<ul style="list-style-type: none"> A. Look, listen, feel for presence of breathing (3-5 seconds) B. Maintain open airway
4. ATTEMPT VENTILATION	<ul style="list-style-type: none"> A. Place barrier device on manikin B. Seal mouth and nose C. Attempt to give slow breath D. Identify if there is an obstruction
5. CHECK POSITIONING	<ul style="list-style-type: none"> A. Re-establish airway using correct method and procedure B. Identify continued presence of the obstruction
6. DELIVER ABDOMINAL THRUST	<ul style="list-style-type: none"> A. Kneel astride the victim's thighs B. Place heel of one hand against the victim's abdomen, in midline slightly above the navel and well below Xiphoid (point where ribs attach to the lower part of the breastbone) C. Place second hand on top of the first D. Deliver quick upward thrust E. Each thrust administered with intention of relieving obstruction F. Deliver 5 thrusts
7. DELIVER CHEST THRUST (ONLY USED IN ADVANCED PREGNANCY OR MARKED OBESE VICTIM)	<ul style="list-style-type: none"> A. Kneel at side of victim B. Place heel of hand on breastbone between the nipples (CPR position) C. Place heel of other hand directly on top of the first hand D. Deliver slow distinct downward thrust, with each thrust administered with intent of relieving obstruction E. Deliver 5 thrusts
8. CHECK FOR FOREIGN BODY	<ul style="list-style-type: none"> A. Follow with opening mouth and finger sweep (Open mouth, grasping tongue and lower jaw with thumb and fingers, insert index finger of other hand down along inside cheek and deeply into throat in a hooking action) B. Grasp and remove foreign object if dislodged
9. ESTABLISH AIRWAY	<ul style="list-style-type: none"> A. Correctly perform head-tilt/chin-lift or jaw thrust maneuver depending on cervical spine (neck) injuries

10. ATTEMP VENTILATION	A. Correctly make effort to administer slow full breath B. Administer second slow full breath, if first successful and check pulse C. If unsuccessful repeat sequence of thrust, finger sweep and attempt to ventilate
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SUCKING CHEST WOUND

PROCEDURES	CRITICAL SKILL
1. EXPOSE WOUND	A. Expose entire wound
2. SEAL WOUND AND CONTROL BLEEDING	A. Place occlusive dressing over wound (If occlusive dressing is not available use gloved hand) B. Ensure dressing extends two inches beyond edges of wound C. 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

NOTE: Alert, verbal, painful, unresponsive (AVPU)

LIFE-THREATENING BLEEDING

PROCEDURES	CRITICAL SKILL
1. DIRECT PRESSURE AND ELEVATION	A. Expose the wound. B. Clear the wound surface C. Apply direct pressure with a gloved hand D. Apply a dressing to wound (cover entire wound) and continue to apply direct pressure E. Elevate the extremity except when spinal injury exists F. Bandage dressing in place after bleeding has been controlled G. Reassure patient H. Treat for shock
2. IF NOTIFIED THAT BLEEDING IS NOT CONTROLLED, PRESSURE POINTS SHALL BE UTILIZED	A. Apply pressure to appropriate pressure point and notify judge verbally that bleeding is controlled (Apply pressure to blood vessels leading to area - in arm, press just below armpit; in leg, press against groin where thigh and trunk join.) B. Bandage dressing in place after bleeding has been controlled C. Reassure patient D. Treat for shock

External Bleeding

To Control: 1st: direct pressure
 2nd: elevation & direct pressure
 3rd: pressure point
 Last Resort: Tourniquet

Internal Bleeding

1. Monitor breathing and pulse
2. Keep patient still
3. Loosen restrictive clothing
4. Be alert if patient vomits
5. Nothing by mouth
6. Reassure and keep patient calm
7. Report possibility of internal bleeding as soon as EMS personnel arrive on scene

TOURNIQUET

PROCEDURES	CRITICAL SKILL
1. DETERMINE NEED FOR USING TOURNIQUET	<p>If these conditions are met, a tourniquet may be the only alternative:</p> <ul style="list-style-type: none"> A. Direct pressure has not been successful in stopping bleeding B. Elevation of wound above heart has not been successful in stopping of bleeding C. Compression of pressure point has not been successful in stopping of bleeding.
2. SELECT APPROPRIATE MATERIALS	<ul style="list-style-type: none"> A. Select a band that will be between 3-4 inches in width and can be wrapped six or eight layers deep for improvised tourniquet or select factory tourniquet.
3. APPLY BAND	<ul style="list-style-type: none"> A. Wrap band around the extremity proximal to the wound (one inch above but not on a joint) B. Tie one knot in the bandage C. Place a stick or pencil on top of the knot and tie the ends of the bandage over the stick in a square knot
4. APPLY PRESSURE WITH TOURNIQUET	<ul style="list-style-type: none"> A. Twist the stick until the bleeding is controlled, secure the stick in position B. Do not cover the tourniquet C. Notify other medical personnel caring for the patient
5. MARK PATIENT APPROPRIATELY	<ul style="list-style-type: none"> A. Mark a piece of tape on the patient's forehead "TQ" and time applied
6. REASSESS	<ul style="list-style-type: none"> A. Assess level of consciousness, respiratory status, and patient response

DRESSINGS AND BANDAGING - OPEN WOUNDS

PROCEDURE	CRITICAL SKILL
1. EMERGENCY CARE FOR AN OPEN WOUND	<ul style="list-style-type: none"> A. Expose wound B. Clear wound surface C. Control bleeding D. Prevent further contamination E. Bandage dressing in place after bleeding has been controlled F. Keep patient lying still G. Reassure the patient H. Treat for shock
2. APPLY DRESSING	<ul style="list-style-type: none"> A. Use sterile dressing B. Cover entire wound C. Control bleeding D. Do not remove dressing
3. APPLY BANDAGE	<ul style="list-style-type: none"> A. Do not bandage too tightly B. Do not bandage too loosely C. Do not leave loose ends D. Do not cover the tips of fingers and toes when appropriate E. Cover all edges of dressing F. Do not cover tips of fingers and toes, unless they are injured G. Bandage from the bottom of the limb to the top (distal to proximal)

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
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.”)

Impaled Objects in the Eye

1. Stabilize with 3 inch gauze or folded 4x4
2. Put cup (no styrofoam) over object and allow cup to rest on roller gauze or 4x4
3. Secure cup with roller gauze (not over top of cup)
4. Cover uninjured eye too

Open Neck Wound (Serious or Life Threatening)

1. Gloved hand over wound
2. Occlusive dressing over wound- 2 inches larger than wound site
3. Gauze dressing over occlusive
4. Place roller gauze beside site and wrap around figure 8 under opposite arm

Abdominal Injury

1. Place on back with legs flexed at the knees (for closed or open wounds)

Additional Steps for Open Abdominal Wounds (Serious or Life Threatening)

1. Apply moist dressing, then an occlusive dressing
2. Cover the occlusive with pads or a towel for warmth
3. If an object is impaled in abs, stabilize it and do not flex legs- leave them in the position you found them.

Skull Fractures and Brain Injuries

1. Assume spinal injuries and open airway with jaw thrust
2. Apply collar
3. Use loose gauze dressing- no direct pressure
4. Keep at rest, ask them questions
5. Don't elevate legs (on or off a backboard)
6. After entire body is immobilized- place patient on their side (recovery position) for drainage if needed

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

NOTE:

Triangular slings are required for all wounds of upper extremities, including shoulder and armpit wounds. Slings will not be required for upper extremity burns. However, if a burn and wound and/or fracture/dislocation are present on the same upper extremity, a sling shall be applied. Slings will be applied on upper extremities with injuries after all injuries of the extremity have been treated. (Page #8 rule #25)

TWO-PERSON LOG ROLL

PROCEDURES	CRITICAL SKILL
1. STABILIZE HEAD	<ul style="list-style-type: none"> A. Stabilize the head and neck B. Collar secure in place (if spinal injury is present)
2. PREPARING THE PATIENT	<ul style="list-style-type: none"> A. Place board parallel to the patient B. Kneel at the patient's shoulders opposite the board 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	<ul style="list-style-type: none"> A. Grasp the patient at the shoulder and pelvis area B. Give instructions to bystander, if used to support
4. ROLLING THE PATIENT	<ul style="list-style-type: none"> 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 with other D. Roll the body as a unit onto the board (board may be slanted or flat) E. Place the arm alongside the body
5. SECURING PATIENT TO BOARD	<ul style="list-style-type: none"> A. Secure patient's head to backboard when required B. If suspected spinal injury exists, maintain support of the patient's head until the body, torso, legs and head are secured to the back board. C. Tie the wrists together unless injury prevents

**SPLINTING LOWER EXTREMITY FRACTURES AND DISLOCATIONS
(IMMOBILIZATION OF DISLOCATED HIP)**

PROCEDURE	CRITICAL SKILL
1. CARE FOR HIP DISLOCATION	A. Check for motion and circulation at injured limb's foot B. Place folded blanket between patients legs C. Bind legs together with cravats (triangular bandage)
2. SECURING PATIENT TO LONG SPINE BOARD	A. Move patient to long spine board B. Immobilize limb with pillows or rolled blankets C. Secure the patient to board with straps or cravats D. Reassess for motion and circulation at injured limb's foot.

Pelvic Injuries

1. Do not use log roll
2. Place folded blanket between legs from groin to feet and bind together with cravats (upper thigh, above the knees, below the knee, and at ankle)
3. Reassess for pulse, motor and sensory at feet

**SPLINTING LOWER EXTREMITY AND ANKLE FRACTURES AND
DISLOCATIONS (AIR SPLINT)**

PROCEDURE	CRITICAL SKILL
1. CARE FOR FRACTURE	A. Check for motion and circulation at injured limb's foot
2. IMMOBILIZE FRACTURE	A. Grasp leg with one hand just above injury site and other hand just below injury site B. Maintain support C. Properly apply splint (for ankle or foot, air splint must extend above knee) D. Splint should be relatively free of wrinkles E. Check for circulation at injured limb's foot prior to inflation F. Inflate splint to point that slight dent can be made
3. MONITOR AIR-INFLATED SPLINT	A. Check for leaks B. Periodically check for increase or decrease in pressure C. Monitor pressure in splint with finger tip D. Make certain desired pressure is maintained E. Reassess for circulation at injured limb's foot

**SPLINTING LOWER EXTREMITY FRACTURES AND DISLOCATIONS
(ANKLE)**

PROCEDURE	CRITICAL SKILL
1. CARE FOR FRACTURED OR DISLOCATED ANKLE	<ul style="list-style-type: none"> A. Check for motion and circulation at injured limb's foot B. Immobilize fracture of dislocation with pillow and cravats
2. IMMOBILIZE FRACTURE OF DISLOCATION	<ul style="list-style-type: none"> A. Stabilize limb, lift limb, but do not apply traction B. Place three cravats (triangular bandage) under ankle C. Place pillow length wise under ankle, on top of cravats (pillow should extend 6 inches beyond foot) D. Lower limb, adjust cravats to tie E. Tie cravats distal to proximal F. Tie fourth cravat at arch of foot G. Elevate with blanket or pillow H. Reassess for motion and circulation at injured limb's foot

**SPLINTING UPPER EXTREMITY FRACTURES AND DISLOCATIONS
(FRACTURED COLLAR BONE)**

PROCEDURE	CRITICAL SKILL
1. CARE FOR FRACTURED CLAVICAL	<ul style="list-style-type: none"> A. Check for motion and circulation at injured limb's hand B. Immobilize fracture with a sling and swathe (triangular bandage)
2. IMMOBILIZE FRACTURE	<ul style="list-style-type: none"> 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 until hand is elevated and tie on uninjured side E. Secure excess material at elbow F. Expose fingertips G. Check for motion and circulation
3. SECURING SLING WITH SWATHE	<ul style="list-style-type: none"> A. Use triangle cravat B. Swathe is tied around chest and injured arm C. Reassess for motion and circulation at injured limb's hand

**SPLINTING UPPER EXTREMITY FRACTURES AND DISLOCATIONS
(DISLOCATED SHOULDER - ANTERIOR)**

PROCEDURE	CRITICAL SKILL
1. CARE FOR DISLOCATED SHOULDER	<ul style="list-style-type: none"> A. Check for motion and circulation at injured limb's hand B. Immobilize dislocation with appropriate padding, sling and swathe (triangular bandage)
2. IMMOBILIZING DISLOCATED SHOULDER	<ul style="list-style-type: none"> A. Place appropriate padding between arm and chest B. place sling over padding and rest arm in position C. Hold or stabilize arm D. Triangle should extend behind elbow on injured side E. Pull sling around neck until hand is elevated and tie on uninjured arm F. Secure excess material at elbow G. Fingertips should be exposed
3. SECURING SLING WITH SWATHE	<ul style="list-style-type: none"> A. Use triangle cravat B. Swathe is tied around chest and injured arm C. Reassess for motion and circulation at injured limb's hand

**SPLINTING UPPER EXTREMITY FRACTURES AND DISLOCATIONS
(FRACTURED FOREARM 1 INCH ABOVE THE WRIST -
SHORT RIGID SPLINT, KERLIX, OR CRAVATS AND SLING)**

PROCEDURE	CRITICAL SKILL
1. CARE FOR FRACTURE OF WRIST AND FOREARM AREA	A. Check for motion and circulation at injured limb's hand B. Immobilization of fracture to wrist and forearm area using a rigid splint
2. IMMOBILIZING FRACTURE OF WRIST AND FOREARM AREA	A. Selection of appropriate rigid splint of proper length B. Support affected limb and limit movement C. Apply appropriate padding to rigid splint D. Place appropriate roller bandage in hand to ensure the position of function E. Properly apply splint with appropriate wrap F. Apply wrap distal to proximal G. Check for motion and circulation at injured limb's hand
3. IMMOBILIZING FRACTURE USING SLING	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
4. SECURING SLING WITH SWATHE	A. Use triangle cravat B. Swathe is tied around chest and injured arm C. Reassess for motion and circulation at injured limb's hand

**SPLINTING UPPER EXTREMITY FRACTURES
(AIR SPLINT/VACCUM SPLINT)**

PROCEDURE	CRITICAL SKILL
1. CARE FOR FRACTURE	A. Check for motion and circulation at injured limb's hand
2. IMMOBILIZE FRACTURE	A. Grasp arm with one hand just above injury site and other hand just below injury site B. Maintain support C. Properly apply splint D. Splint should be relatively free of wrinkles E. Check for circulation at injured limb's hand prior to inflation F. Inflate splint to point that slight dent can be made
3. MONITOR AIR-INFLATED SPLINT	A. Check for leaks B. Periodically check for increase or decrease in pressure C. Monitor pressure in splint with finger tip D. Make certain desired pressure is maintained E. Reassess for circulation at injured limb's hand

SPLINTING - FLAIL CHEST

PROCEDURE	CRITICAL SKILL
1. DETERMINE NEED FOR SPLINTING	A. Assess for: <ul style="list-style-type: none"> • Pain • Swelling • Deformity B. Determine if splinting is warranted
2. SELECT APPROPRIATE SPLINTING MATERIAL	A. Choose a pillow, blanket, trauma dressing, or other appropriate splinting material
3. PREPARE FOR SPLINTING	A. Remove or cut away clothing as needed B. Cover any open wounds with sterile dressing and bandage
4. APPLY SPLINT	A. Affix splint to chest with adhesive tape or roller bandage B. Immobilize the site of injury C. Use caution when taping splint to chest circumferentially D. Ensure sufficient chest expansion
5. REASSESS	A. Assess patient response and level of comfort
6. ASSIST VENTILATIONS	A. Assist with ventilation as needed

SPLINTING - HIP
Use living or padded board splints

PROCEDURES	CRITICAL SKILLS
1. DETERMINE NEED FOR SPLINTING	<p>A. Assess for:</p> <ul style="list-style-type: none"> • Pain • Swelling • Deformity <p>B. Determine if splinting is warranted</p>
2. APPLY MANUAL STABILIZATION	<p>A. Support affected limb and limit movement</p> <ul style="list-style-type: none"> • Do not attempt to reduce dislocations
3. SELECT APPROPRIATE SPLINT	<p>A. Choose living splint, padded boards</p>
4. PREPARE FOR SPLINTING	<p>A. Remove or cut away clothing as needed</p> <p>B. Assess PMS distal to the injury:</p> <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function <p>C. Cover any open wounds with sterile dressing and bandage</p> <p>D. Measure splint</p> <p>E. Pad around splint for patient comfort</p>
5. SPLINT	<p>A. Immobilize the site of injury</p> <p>B. Maintain support while splinting</p> <p>C. Immobilize bones above and below the site of injury</p> <p>Living Splint:</p> <p>D. Immobilize the site of injury</p> <p>E. Carefully place a pillow or folded blanket between the patients knees/legs</p> <p>F. Bind the legs together with wide straps or cravats</p> <p>G. Carefully place patient on long spine board</p> <p>H. Secure the patient to the long spine board</p> <p>Padded Board Splint:</p> <p>I. 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)</p> <p>J. Cushion with padding in the armpit and groin and all voids created at the ankle and knee</p> <p>K. Secure the splinting boards with straps or cravats</p> <p>L. Carefully place the patient on long spine board</p> <p>M. Secure the patient to the long spine board</p>
6. REASSESS	<p>A. Reassess PMS</p> <p>B. Assess patient response and level of comfort</p>

SPLINTING - LONG BONES
For injuries to Humerus, Radius, Tibia or Fibula

PROCEDURES	CRITICAL SKILLS
1. DETERMINE NEED FOR SPLINTING	A. Assess for: <ul style="list-style-type: none"> • Pain • Swelling • Deformity B. Determine if splinting is warranted
2. APPLY MANUAL STABILIZATION	A. Support affected limb and limit movement
3. SELECT APPROPRIATE SPLINTING MATERIALS	A. Select appropriate splinting method depending on position of extremity and materials available B. Select appropriate padding material
4. PREPARE FOR SPLINTING	A. Remove or cut away clothing as needed B. Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function C. Cover any open wounds with sterile dressing and bandage D. Pad around splint for patient comfort
5. SPLINT	A. Immobilize site of injury B. Immobilize joints above and below the site of injury C. Maintain support while splinting Upper Extremity: D. Secure splinted arm to chest with a sling and swathe (NOTE: distal, proximal – use full sling, Mid-shaft – wrist sling only) E. Place sufficient padding, such as a pillow or rolled blanket, between the arm and chest, if arm is in a fixed position, away from the body Lower Extremity: F. Consider immobilizing to other leg or long backboard G. Pad as needed
6. REASSESS	A. Reassess PMS distal to the injury B. Assess patient response and level of comfort

ONE RESCUER BLANKET DRAG

PROCEDURE	CRITICAL SKILL
1. VICTIM SUPINE ON GROUND	<ul style="list-style-type: none"> A. Properly prepare blanket for use in blanket drag B. Spread blanket along side patient with approximately one half the width gathered lengthwise into pleats
2. POSITION PATIENT	<ul style="list-style-type: none"> A. Properly roll victim on one side B. Take patients arm on side of body opposite to blanket and extend arm over head C. Support head and neck roll patient on side away from blanket
3. PLACE PATIENT ON BLANKET	<ul style="list-style-type: none"> A. Properly position on blanket B. Hold patient on side while pleated portion of blanket is pulled in close to victim's back C. Roll patient onto blanket, extend opposite arm and roll onto opposite side D. Smooth out pleats and roll patient onto back E. Snugly wrap patient in blanket with arms at sides
4. PREPARE TO DRAG PATIENT	<ul style="list-style-type: none"> A. Proper blanket drag of patient B. Grasp portion of blanket beneath victim's head and drag victim to safety

TWO RESCUER EXTREMITY GROUND LIFT

PROCEDURE	CRITICAL SKILL
1. POSITIONING	A. Rescuer 1 - Kneel at the head of the patient and place one hand under each of the shoulders B. Rescuer 2 - Kneel by the patients knees and grasp the patient's wrist
2. RAISING PATIENT TO A SITTING POSITION	A. Rescuer 1 - push patient's shoulders up and support patient's back and head with body B. Rescuer 2 - Gently pull on patient's arms
3. POSITIONING AND LIFTING	A. Rescuer 1 - Support patient in sitting position B. Rescuer 2 - Slip hands under the patient's knees C. On command, rescuers stand simultaneously, lifting patient with proper body mechanics

SHIRT DRAG

PROCEDURE	CRITICAL SKILL
1. POSITIONING	A. Rescuer - Kneel at the head of the patient and place one hand under each of the shoulders
2. MOVING PATIENT	A. Rescuer - Grasp shirt at the shoulder area B. Drag patient in a straight line (keep spine as straight as possible)

ESTABLISHING AIRWAY-SUSPECTED CERVICAL SPINE (NECK) INJURY

PROCEDURE	CRITICAL SKILL
1. STABILIZE HEAD	A. Rescuer - Position at top of the victim's head B. Restrain victim's head and neck to avoid voluntary or involuntary movement/rotation of the neck
2. ESTABLISH AIRWAY	A. Use modified jaw thrust maneuver without causing over-extension of victim's neck
3. CHECK FOR BREATHING	A. Look, listen and feel for breathing (3-5 seconds) B. State that the victim is/is not breathing
4. MAINTAIN OPEN AIRWAY	A. Do not compromise suspected neck injury

SHOCK

PROCEDURE	CRITICAL SKILL
1. CHECK FOR SIGNS AND SYMPTOMS OF SHOCK	A. Check for pale (or bluish) skin (in victim with dark skin examine inside of mouth and nailbeds for bluish coloration). B. Check for cool, clammy skin C. Check for weakness
2. TREATMENT	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 1: Elevate the lower extremities. This procedure is performed in most cases. Place the patient flat, face up and elevate the legs 8 to 12 inches. Do not tilt the patient's body. Do not elevate any limbs with possible fractures unless they have been properly splinted. Do not elevate the legs if there are suspected fractures to the pelvis. 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 serious injuries to the extremities. 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 possible neck, spine, 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.

IMMOBILIZATION - LONG SPINE BOARD (Backboard)

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

IMMOBILIZATION OF CERVICAL SPINE

PROCEDURES	CRITICAL SKILL
1. ESTABLISH AND MAINTAIN IN-LINE IMMOBILIZATION	<p>A. Place head in a neutral, in-line position unless patient complains of pain or the head is not easily moved into position</p> <p>B. Place head in alignment with spine</p> <p>C. Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with head immobilized</p>
2. ASSESS PMS	<p>A. Assess PMS in all extremities:</p> <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function
3. ASSESS CERVICAL REGION AND NECK	<p>A. Inspect and palpate for injuries or signs of injuries using: DOTS acronym</p> <p>B. Remove clothing or jewelry as necessary</p>
4. BANDAGE ANY WOUND	<p>A. Any neck wounds</p>
5. APPLY CERVICAL SPINE IMMOBILIZATION	<p>A. Apply properly sized collar or manual immobilization</p>
	<p>One piece C-collar</p> <p>A. Select proper sized collar</p> <p>B. Apply collar</p> <p>C. Ensure that patient's head is not twisted during application</p> <p>D. Ensure airway is open after placement</p> <p>Two piece C-collar</p> <p>A. Select proper sized collar</p> <p>B. Apply rear section to back of neck</p> <p>C. Center rigid support on spine</p> <p>D. Apply front section (overlaps rear section)</p> <p>E. Ensure chin rests in chin cavity</p> <p>F. Secure collar with Velcro straps</p> <p>G. Ensure airway is open after placement</p>
6. SECURE HEAD TO APPROPRIATE IMMOBILIZATION DEVICE	<p>A. Immobilize patient to appropriate immobilization device</p> <p>B. Use head set or place rolled blankets or towels on each side of head</p> <p>C. Tape head securely to appropriate immobilization Device</p>
7. REASSESS	<p>A. Reassess PMS</p> <p>B. Assess patient response and level of comfort</p>

BURNS

PROCEDURES	CRITICAL SKILLS
1. DETERMINE BURN TYPE	<p>A. Determine type</p> <ul style="list-style-type: none"> • Thermal • Chemical • Electrical
2. DETERMINE BODY SURFACE AREA	A. Determine Body Surface Area (BSA) using rule of nines
3. DETERMINE BURN CLASSIFICATION	<p>Superficial (involves epidermis only):</p> <p>A. Reddened skin</p> <p>B. Pain at site</p> <p>Partial Thickness (involves epidermis and dermis, but not underlying tissue):</p> <p>C. Intense Pain</p> <p>D. White to red skin that is moist and mottled</p> <p>E. Blisters</p> <p>Full Thickness (all dermal layers, may involve muscle, bone or organs):</p> <p>F. Skin is dry and leathery and may appear white, dark brown or charred</p> <p>G. Loss of sensation - little or no pain</p> <p>H. Hard to touch</p> <p>I. Pain at periphery</p>
4. DETERMINE BURN SEVERITY	<p>Minor Burns:</p> <p>A. Full thickness burns of less than 2% of the body surface</p> <p>B. Partial thickness burns of less than 15% of the body surface</p> <p>Moderate Burns:</p> <p>C. Full thickness burns of 2% to 10% of the body surface, excluding hands, feet, face, genitalia and upper airway</p> <p>D. Partial thickness burns of 15% to 30% of the body surface area</p> <p>E. Superficial burns of greater than 50% body surface area</p> <p>Critical Burns:</p> <p>F. Full thickness burns involving hands, feet, face or genitalia</p> <p>G. Burns associated with respiratory injury</p> <p>H. Full thickness burns covering >10% of the body surface</p> <p>I. Partial thickness burns covering >30% of the body surface</p> <p>J. Burns complicated by painful, swollen or deformed extremity</p>

	<ul style="list-style-type: none"> K. Moderate burns in young children or elderly patients L. Circumferential burns of arm, leg, abdomen or chest
5. BURN CARE (All Types)	<ul style="list-style-type: none"> A. Remove patient from source of burn and prevent further contamination B. Consider the type of burn and stopping the burning process initially with water or saline if appropriate C. Cut off smoldering clothing D. Remove jewelry E. Continually monitor the airway for evidence of closure F. Cover the burned area with a dry sterile dressing G. Do not use any type of ointment, lotion or antiseptic H. Do not break blisters I. Ensure patient does not get hypothermic
6. CARE FOR CHEMICAL BURNS	<ul style="list-style-type: none"> A. Protect yourself from exposure to hazardous materials B. Wear gloves, eye protection, and respiratory protection C. Brush off dry powders D. Consider to flushing with large amounts of water E. Continue flushing the contaminated area while en route to the receiving facility F. Use caution not to contaminate uninjured areas when flushing
7. CARE FOR ELECTRICAL BURNS	<ul style="list-style-type: none"> A. Ensure safety before removing patient from the electrical source B. If the patient is still in contact with the electrical source or you are unsure, do not approach or touch the patient, contact power company C. Monitor the patient closely for respiratory and cardiac arrest D. Treat the soft tissue injuries associated with the burn E. Look for both an entrance and exit wound
8. REASSESS	<ul style="list-style-type: none"> A. Reassess level of consciousness, respiratory status, and patient response

EARLY OR SUPERFICIAL FROSTBITE

PROCEDURES	CRITICAL SKILLS
1. ASSESS FOR FROSTBITE AND COLD INJURIES	A. Patient exhibits signs and symptoms of frostbite or cold injuries
2. ASSESS FOR EARLY OR SUPERFICIAL FROSTBITE	A. Blanching of the skin - palpitation of the skin in which normal color does not return B. Loss of feeling and sensation in the injured area C. Skin remains soft D. If re-warmed, patient will feel a tingling sensation
3. TREAT EARLY OR SUPERFICIAL INJURY	A. Remove the patient from the environment B. Protect the cold injured extremity from further injury C. Remove wet or restrictive clothing D. Do not rub or massage E. Do not re-expose to the cold
4. REASSESS	A. Reassess level of consciousness, respiratory status and patient response

LATE OR DEEP COLD INJURY

PROCEDURES	CRITICAL SKILLS
1. ASSESS FOR FROSTBITE AND COLD INJURIES	A. Patient exhibits signs and symptoms of frostbite or cold injuries
2. ASSESS FOR LATE OR DEEP COLD INJURY	A. White, waxy skin B. Firm to frozen feeling upon palpitation C. If thawed or partially thawed, the skin may appear flushed with areas of purple and blanching or mottled and cyanotic D. Swelling may be present E. Blisters may be present
3. TREAT LATE OR DEEP COLD INJURY	A. Remove the patient from the environment B. Protect the cold injured extremity from further injury C. Remove wet or restrictive clothing D. Remove jewelry E. Cover with dry clothing or dressings F. Do not: <ul style="list-style-type: none"> • Break blisters • Rub or massage area • Apply heat • Re-warm • Allow the patient to walk on the affected extremity
4. REASSESS	A. Reassess level of consciousness, respiratory status and patient response

MILD HYPERTHERMIA (HEAT)

PROCEDURE	CRITICAL SKILL
1. ASSESS FOR HYPERTHERMIA	A. Patient exhibits signs and symptoms of hyperthermia: <ul style="list-style-type: none"> • Redness • Muscular cramps • Weakness or exhaustion • Rapid heart rate • Dizziness or faintness • Altered mental status to unresponsive
2. PREVIOUS INTERVENTIONS	A. Inquire about previous interventions attempted
3. ASSESS FOR MILD HYPERTHERMIA (HEAT EXHAUSTION)	A. Check skin for: <ul style="list-style-type: none"> • Normal to cool temperature • Pale • Moist
4. TREATMENT FOR MILD HYPERTHERMIA	A. Remove patient from hot environment and place in a cool environment B. Loosen or remove clothing C. Cool patient by fanning D. Put in supine position with legs elevated E. Offer drinking water if patient is responsive and not nauseated F. If the patient is unresponsive or is vomiting, transport to the hospital
5. REASSESS	A. Reassess level of consciousness, respiratory status and patient response

SEVERE HYPERTHERMIA

PROCEDURE	CRITICAL SKILL
1. ASSESS FOR HYPERTHERMIA	<p>A. Patient exhibits signs and symptoms of hyperthermia:</p> <ul style="list-style-type: none"> • Redness • Muscular cramps • Weakness or exhaustion • Rapid heart rate • Dizziness or faintness • Altered mental status to unresponsive
2. PREVIOUS INTERVENTIONS	A. Inquire about previous interventions attempted
3. ASSESS FOR SEVERE HYPERTHERMIA (HEAT STROKE)	<p>A. Check skin for:</p> <ul style="list-style-type: none"> • Hot temperature • Red • Dry or moist
4. TREATMENT FOR SEVERE HYPERTHERMIA	<p>A. Place patient in a cool environment</p> <p>B. Remove clothing</p> <p>C. Wet patient skin by applying water from sponge or wet towels and fan</p> <p>D. Put in supine position with legs elevated</p> <p>E. Offer drinking water if patient is responsive and not nauseated</p> <p>F. Apply cool packs to neck, groin and armpits</p> <p>G. Transport immediately</p>
5. REASSESS	A. Reassess level of consciousness, respiratory status and patient response