

# *SECTION II*

*2019*

## *FIRST AID*

### *RULES*



# 2019 FIRST AID CONTEST RULES

## INDEX

### Section II

<u>Title</u>	<u>Page</u>
Rules Governing the 2019 First Aid Contest.....	1
Scorecard A Discounts .....	8
Interpretations of Scorecard B (Artificial Ventilation/Cardiopulmonary Resuscitation). .....	12
<u>Skill Sheets</u>	
Initial Assessment .....	16
Patient Assessment .....	17
One-Person CPR (Manikin Only) .....	19
Two-Rescuer CPR (Manikin Only).....	21
Mouth-to-Mask Resuscitation .....	27
Airway Obstruction.....	28
Sucking Chest Wound.....	30
Life Threatening Bleeding.....	31
Tourniquet.....	32
Dressings and Bandaging - Open Wounds .....	33
Two-Person Log Roll .....	35
Three-Person Log Roll.....	38
Splinting .....	36
One Rescuer Blanket Drag.....	44
Ground Lifts.....	45
Shirt Drag .....	46
Establishing Airway - Suspected Cervical Spine (Neck) Injury .....	47
Shock.....	48
Immobilization .....	49
Burns .....	51
Frostbite.....	52
Late or Deep Cold Injury .....	53
Hyperthermia .....	54
First Aid Statements of Fact.....	56

## RULES GOVERNING THE 2019 NATIONAL FIRST AID CONTEST

First Aid rules were designed as a training tool for first aid teams. They were developed for contest purposes only. Discretion should be used in actual mine emergency situations.

1. All First-Aid Problems will be sent to either the Chief/ Assistant Chief Judge of First-Aid for review and approval.
2. Members of First Aid Teams must be composed of persons who are bona fide employees of the mining companies or persons who are designated or contracted by mining companies. Teams shall furnish their own recording manikin, (provided with the equipment to print out the results of CPR/ AV) and all other materials listed in section C. Miscellaneous below.
3. A team shall consist of two members and a patient. A team shall not use the same patient 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 and Body Substance Isolation (BSI) precautions will be in place. If a patient is used as a bystander, teams must provide BSI precautions prior to patient contact. Each team shall work one first aid problem and the score shall determine the team's final standings.
4. Each team entering the contest will draw a number to determine the order of the performance at the time of registration.
5. 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.
6. 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.
7. Only designated officials will be allowed to communicate with teams while teams are working.
8. All procedures shall be performed in the order listed: Skill Sheets supersede First Aid Rules which supersede Brady First Responder Tenth Edition by Bergeron and Le Baudour.

9. Contest officials will designate a space (15 feet by 15 feet minimum) for teams to work. All equipment and team members 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, bystanders/patients and the contesting teams.

Team members not complying with this rule will be docked under Rule 18 on Scorecard A

10. The timekeepers shall explain to the team the timing devices used. Prior to starting the timing devices Judges will require a sample CPR tape with a signature and team number on the sample CPR tape. (Check shallow breaths and shallow compressions).
11. Problems will be kept in unsealed envelopes, retained by the judges, and given to the team after the timing device has been started. Judges shall place the patient in the required position as stated in the problem to be worked.
  - a. The working time for a problem will start when the team starts the timing device.
  - b. If props are to be utilized during the working of the problem, such props must be readily available to the working teams and in working condition. Props (except props used to simulate an injury) must be identified by the judges to the team members prior to starting the timing device and must be located within the designated working area. Props will not be utilized in lieu of first aid equipment for treatment of patient(s). Props will be limited to items related to communication and mechanism of injury for effects unless skill sheets are provided. Props shall be within the application of the skill sheets used for treatment of the injury/conditions.
  - c. 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.
12. 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. Signs, symptoms or mechanisms of injury may be used. If signs and symptoms are used, all signs and symptoms shall be identified by cards, envelopes or labels placed on patient. All signs and symptoms will be given to the teams in writing. 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 initial or patient assessment, teams may find an envelope attached to the patient(s) or be provided an envelope by the judges which contains patient information that needs immediate attention. If repositioning of patient(s) is required for treatment, patient(s) must be placed in the proper position prior to treatment. Upon completion of treatment of these conditions, the initial or patient assessment will be resumed at the point where team left off. The patient(s) will already be marked upon arrival of the team.

13. Lettering on the cards and/or labels will be at least 1/4-inch in height and all life threatening conditions will be in red.

Example: 2-INCH WOUND ON FOREHEAD

14. The problem will end and teams will stop the timing device when all conditions have been located, treated, and the 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.
15. After stopping the timing device, team members will remain with the patient(s) until released by the judges. Any physical treatment(s) not performed, i.e. bandage, splint not correctly placed or utilized will be pointed out to team at this time.
16. 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). When a time limit is utilized the average working time will not be in problems.
17. The accumulation of individual discounts within a procedure shall not exceed the discounts for failure to perform that procedure. (Example AV, CPR, etc.)

### **A. Written Examination**

1. During isolation, contest officials will give the written exam to the two working team members. The written examination will be ten statements of fact taken verbatim from the contest rules. Each statement shall contain a blank space which shall represent a key word, with no more than two consecutive blanks per statement. Answers will be multiple choice with three choices. Answers will not be intentionally misspelled. "None of the above" shall not be used as one of the choices.

A maximum of fifteen minutes will be allowed for the team members to take the test.

2. Team members taking the written examination will not be permitted to take any written material or information into the testing area.
3. There will be no discussion during the time that written examinations are being taken.

### **B. 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, written exam will be the third tie breaker and actual working time, in minutes and seconds, of the team will be the fourth tie breaker.

### **C. Miscellaneous**

Teams will be notified by posting when they may review their score cards. Within one hour of posting, team members and trainer shall report to a designated location. Once notified, team members and the trainer shall have 20 minutes for reviewing the problem, the judge's 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 or Brady 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. Problems will be designed utilizing no more than the minimum material list. For contest purposes, all bandaging materials will be considered sterile. For contests purposes **only four by four** dressings need not be opened before use for treatment.

- 24 Triangular Bandages
- 6 Adhesive compresses
- 24 Sterile gauze, (4" x 4") and/or 4" Compresses
- 6 Roller Bandages
- 3 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
- 4 Cold packs - Simulated
- 2 Oval Eye Pads
- 1 Pen and paper set
- 1 Recording manikin (with device to the print results of AV/CPR performed)
- 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 Adhesive Tape
- 1 Burn Sheet, Sterile (40" x 80" minimum)
- 1 Rigid Extrication Collar
- 4 Trauma Dressings (minimum of 10" X 30")
- 1 Eye Shield/Cup
- 1 Pen Light
- 4 Tourniquets
- 2 Towels
- 1 Pillow
- 4 Occlusive Dressing
- 2 Sticks, Wooden Dowels or equivalent
- 1 Watch/Timing Device
- 1 Headset (long spine board)
- 1 500 ml sterile water (for contest purposes expiration date not applicable)
- Compliment of Straps for Long Spine Board (buckle straps, spider straps, etc.)

## Automated External Defibrillator Training Unit (do not power up)

Problem will be designed from the Skill Sheets approved by the Rules Committee. Teams will be required to triage the accident scene. Problem may have up to three patients at the scene.

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 or positioned so that indicators will not be visible to the team. (Equipment will not be shared) 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.

Guidelines for skills sheet discounts:

1. The team is required to call for help/call 911, once during the working of the problem. This statement must be made prior to starting triage.
2. Each critical skill identified with an asterisk (\*) shall be clearly verbalized by the team as it is being conducted.
3. After initially stating what DOTS stands for; Deformities, Open Wounds, Tenderness, and Swelling, the team may simply state "DOTS" when making their checks.
4. After initially stating what CSM stands for; Circulation, Sensation and Motor Function, the team may simply state "CSM" when making their checks.
5. After initially stating what AVPU stands for; Alert, Verbal, Painful, Unresponsive, the team may simply state "AVPU" when making their checks.
6. If an injury requires a back board, the team may continue to the next area to be treated once all injuries not requiring the backboard have been treated or treatment started.
7. The collar for a skull fracture and/or brain injuries, will be applied after the neck has been examined and treatment completed if required.
8. Except for slings required for treatment for fractures or dislocation, slings may be applied anytime during the working of the problem prior to stopping clock. (This



includes slings for fractured ribs). Factory or Triangular slings may be used. No sling required when using a full arm splint, arm should be secured to the body.

9. For injuries requiring splinting, any acceptable splint may be used. Factory splints, wooden splints, air splints, sam splints, etc.
10. Prior to stopping the clock, the team must reassess the patient’s level of consciousness, respiratory status and patient response.
11. Teams must make statement to judge, “Removing clothing; exposing and cleaning wound surface(s)”. This statement is only required to be made once during the working of the problem, prior to treating first wound.
12. Rapid Assessment consists of Initial Assessment and Patient Assessment.
13. If the Rapid Assessment has been performed, all life threatening injuries are treated, and transportation is delayed the detailed patient assessment will be performed and will consist only of the procedures (no critical skills on patient assessment) with treating all injuries when found.

<b>Information for this table taken from Chart figure 27.5- Start Triage System</b>				
	<b>IMMEDIATE</b>	<b>DELAYED</b>	<b>MINOR</b>	<b>DECEASED</b>
<b>Respirations</b>	<b>&gt;30 per minute</b>	<b>&lt;30 per minute</b>	<b>&lt;30 per minute</b>	<b>Absent</b>
<b>Perfusion</b>	<b>Capillary refill &gt;2 seconds or radial pulse absent</b>	<b>Capillary refill &lt;2 seconds or radial pulse present</b>	<b>Capillary refill &lt;2 seconds or radial pulse present</b>	<b>Absent</b>
<b>Mental Status</b>	<b>Unable to follow commands</b>	<b>Able to follow commands</b>	<b>Able to follow commands (Can Walk)</b>	<b>Absent</b>

**Table Reference:** Emergency Medical Responder, Tenth edition by Le Baudour and Bergeron

### Immediate

Teams will systematically conduct initial assessment, treating all life-threatening injuries/conditions. When one or more of the conditions listed in rule 26 is

encountered the team will perform a rapid patient assessment according to the patient assessment skill sheet. To perform a rapid patient assessment, teams will examine each area of the body in its entirety, verbalizing critical skills and injuries/conditions found. No treatment is required for non-life-threatening conditions/injuries found during the rapid patient assessment.

After completing rapid assessment and treating life threatening conditions, if transportation is delayed patient treatment will continue until transportation is available. A detailed patient assessment would be required, treating conditions/injuries as found. Straps may be released as necessary. Support would have to be taken as required. Team will re-strap and transport when transportation is available or treatment completed. Patient is then prepared for transport and/or transported as required by written problem. To prepare for transportation, a team will be required to properly place and secure a patient on a backboard as outlined in the skill sheets, cover with a blanket and lift patient from the floor. After the patient has been lifted from the floor, the team will verbalize – “transporting patient”. (If instructions are given that transportation is delayed prior to or during a rapid assessment a complete detailed patient assessment only will be required)

### Delayed

Teams will systematically conduct the patient assessment according to procedures 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. 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.)

### Minor

Teams will systematically conduct the patient assessment according to procedures 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. 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.)

DECEASED: Once the determination that a patient is deceased the team will be required to cover the patient before stopping the timing device(s).

### SCORECARD A DISCOUNTS

1. Violations of general rules not covered on scorecards. \_\_\_5 each infraction
2. All life-threatening conditions shall be located and started before patient assessment can begin. \_\_\_ 20

Life threatening conditions will be considered a patient having any one or more of the following conditions: breathing difficulties, no pulse, spinal injury, skull fracture, a sucking chest wound or life threatening bleeding)

Patient assessment can begin after all life-threatening conditions have been located and treatment started. Environmental and Medical Emergencies can be treated anytime during the working of the problem after initial assessment.

3. When the team encounters life-threatening bleeding, no work other than controlling bleeding shall be done until bleeding is controlled. Bleeding is controlled when notified by the Judge (judge makes a statement that bleeding is controlled). If treatment has been started and one team member can complete that treatment, the other team member may continue to work. \_\_\_10 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 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 each infraction
6. The bystander/patient 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. 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. \_\_\_\_ 5
8. All team members and patient shall be dressed similarly. 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. \_\_\_\_ 1
9. The team's material and equipment (jump kits, splints, etc.) may not be assembled or donned (excluding BSI) until after the timing device is started. The manikin may be placed in the designated area prior to starting the timing device. \_\_\_\_ 5
10. Handling of a patient by a team or team member in such a manner that could compromise condition of the patient. (Examples: Mishandling extremities, stepping across patient, etc.) (Straddling is only acceptable for patient loading.) (This does not include the rolling of the patient to the side that is injured or rolling a patient more than one time that has signs/symptoms of spinal injury. When teams are required to roll a patient with signs/symptoms of spinal injury, the correct log roll procedure skill sheet for the selected log roll technique, whether it is two or three person log roll will be followed).  
\_\_\_\_5 each infraction
11. All injuries and/or conditions shall be treated (example: wound, fracture, frostbite). \_\_\_\_20 each infraction
12. Preassembly of material. \_\_\_\_5
13. Failure to perform a required critical skill. Each CRITICAL SKILL shall be performed as identified on the skill sheets. \_\_\_\_2 each infraction (except for CPR/AV covered by scorecard B)
14. During patient assessment, failure to verbally state the location physically examined and each condition found. \_\_\_\_1 each infraction
15. Working out of order (assessment, procedure, critical skill). \_\_\_\_2
16. Failure to follow written instructions. \_\_\_\_5
17. 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

18. All material shall be placed behind baseline prior to stopping the timing device. After completing the problem the work area shall be cleaned of ALL material, 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
19. Protective equipment must be donned prior to patient(s) contact (gloves, masks, and eye protection - eyeglasses are acceptable). Only BSI may be donned prior to starting the timing device. \_\_\_5 each infraction
20. Gloves shall be changed if there would be contamination because of a glove tear or due to other contamination (such as contacting multiple patients.)\_\_\_2 each infraction
21. The broken-back board splint may be preassembled and padded. Other splints may be pre-padded but not assembled. (Cravat bandages cannot be preassembled on the back board, except for tying padding.) \_\_\_5
22. Failure to take support of a fracture or dislocation (not supporting fracture or dislocation).\_\_\_\_\_10
  - Support of Extremities - Above and below the fracture or dislocation
  - Support of Hip - Both sides of the fracture or dislocation
  - Support for spinal injury - Stabilization of neck/Modified Jaw Thrust except for analyzing and shocking with AED patient during CPR
  - Support for skull fracture - Stabilization of neck/Modified Jaw Thrust
  - No support for fractured ribs,
  - No support of fractures/ dislocations of nose, jaw, fingers, and toes
23. Support of fractures and/or dislocations shall not be broken or released. (except during the use of an AED **when analyzing or** shock is delivered)\_\_\_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 and swathe are completed. Discount if support of fracture and/or dislocation is released by support person before sling is completed.

Sling and swath not required with air splints.

24. Fractures/dislocations shall be supported prior to bandaging injuries. Once the extremity has been assessed, fractures/dislocations must be supported prior to bandaging injuries on the extremity. \_\_\_\_5

During initial and patient assessment, teams must physically support/stabilize fractures and dislocations that require support 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.

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/deep cold injuries. However, if a burn/deep cold injury and wound and/or fracture/dislocation are present on the same upper extremity, a sling shall be applied.

26. Failure to determine immediate patients. \_\_\_\_10

An immediate patient shall be transported immediately (if transportation is available). This presents a load and go situation.

Immediate conditions are:

- Respirations: >30 respirations per minute
- Perfusion: Capillary refill > 2 seconds or radial pulse absent
- Mental Status: Unable to follow commands. Any one or more of the above conditions must be clearly visible on the patients.

27. Failure to start timing device. \_\_ 2 discounts

28. Each incorrect answer on written examination \_\_1 discount

**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 within 10 seconds. \_\_\_1
6. Failure to use one-way valve barrier device when ventilating manikin. \_\_\_1
7. Failure to state "get AED". \_\_\_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 chest compressions when required. (airway obstruction skill sheet) \_\_\_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
17. Delivery of simulated shock with AED to patient while in contact with the patient \_\_\_5 each occurrence

18. Failure of the printing device to print the results of artificial ventilations given. \_\_\_\_10

### **Cardiopulmonary Resuscitation**

1. Failure to give AV/CPR when required. \_\_\_\_20  
(Maximum of 3 sets AV/CPR or combination thereof)
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 18 seconds. \_\_\_\_1
  - b) Depth. Compression depth shall break the first line for 60 pounds pressure. Over compressions shall not be discounted. \_\_\_\_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 to 120 per minute. \_\_1
6. Failure to maintain hand contact with manikin when releasing pressure during compressions. \_\_\_\_1 (This does not apply between cycles).
7. Failure to give 2 breaths between each cycle of compressions. \_\_\_\_1
  - a. Timing (not completing breaths and returning to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.) \_\_\_\_1
  - b. Volume shall be at least .8 liters (through .7 liter line on new manikins). Over inflation shall not be discounted. \_\_\_\_1



8. Failure to give 5 cycles of 30 compressions and 2 breaths for each set of CPR (point of first down stroke 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 each set of CPR. \_\_\_\_1 (one discount per set)
10. Failure to give 30 chest compressions when airway obstruction is suspected. \_\_\_\_1
11. Failure to perform CPR as stated in the problem. Too many or too few compressions can be detrimental to patient. \_\_\_\_1
12. 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.)
13. Failure to begin with compressions after pulse check is completed or when changing rescuers. \_\_\_\_1
14. Failure to apply the AED when available \_\_\_\_10
15. Failure of rescuers to change positions in 5 seconds or less when performing two-person CPR. \_\_\_\_1
16. Failure of rescuer to state that patient has a pulse when CPR is completed. \_\_\_\_1
17. Failure of the printing device to print the results of Cardiopulmonary Resuscitation given. \_\_\_\_10

### **Artificial Ventilation**

1. Failure to give artificial ventilation. \_\_\_\_\_ 20  
(Maximum of 3 sets AV/CPR or combination thereof)
2. Failure to give 10-12 breaths in each 58-62-second period. \_\_\_\_1  
(1 minute of AV = 1 set)
3. Failure to provide a breath volume of at least .8 liters (through .7 liter line on new manikins). Over inflation shall not be discounted. \_\_\_\_\_ 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

## INITIAL ASSESSMENT

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

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

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

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

**DECEASED:** Cover

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

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

## PATIENT ASSESSMENT

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

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

## ONE-PERSON CPR (MANIKIN ONLY)

PROCEDURES	CRITICAL SKILL
1. RESCUER <b>+</b> ESTABLISH UNRESPONSIVENESS	<input type="checkbox"/> A. Tap or gently shake shoulders <input type="checkbox"/> *B. "Are you OK?" <input type="checkbox"/> C. Determine unconsciousness without compromising cervical spine (neck) injury <input type="checkbox"/> *D. "Call for help" <input type="checkbox"/> *E. "Get AED" (Note: If AED is used, follow local protocol)
2. RESCUER <b>+</b> MONITOR PATIENT FOR BREATHING	<input type="checkbox"/> A. Look for absence of breathing (no chest rise and fall) or gasping breaths, which are not considered adequate (within 10 seconds)
3. RESCUER <b>+</b> CHECK FOR CAROTID PULSE	<input type="checkbox"/> A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck <input type="checkbox"/> B. Check for presence of carotid pulse for 5 to 10 Seconds <input type="checkbox"/> *C. Absence of pulse <input type="checkbox"/> *D. Immediately start CPR if no pulse
4. POSITION FOR COMPRESSIONS	<input type="checkbox"/> A. Locate the compression point on the breastbone between the nipples <input type="checkbox"/> B. Place the heel of one hand on the compression point and the other hand on top of the first so hands are parallel <input type="checkbox"/> C. Do not intentionally rest fingers on the chest <input type="checkbox"/> D. Keep heel of your hand on chest during and between compressions
5. DELIVER CARDIAC COMPRESSION	<input type="checkbox"/> A. Give 30 compressions <input type="checkbox"/> B. Compressions are at the rate of 100-120 per minute (30 compressions delivered within 18 seconds) <input type="checkbox"/> C. Down stroke for compression must be on or through compression line <input type="checkbox"/> D. Return to baseline on upstroke of compression
6. ESTABLISH AIRWAY	<input type="checkbox"/> A. Kneel at the patient's side near the head <input type="checkbox"/> B. Correctly execute head-tilt/ chin-lift or jaw thrust maneuver depending on the presence of cervical spine injuries

<p>7. VENTILATIONS BETWEEN COMPRESSIONS</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>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)  D. Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)</p>
<p>8. CONTINUE CPR FOR TIME STATED IN PROBLEM</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths  B. To check for pulse, stop chest compressions for no more than 10 seconds after the first set of CPR  C. Rescuer opens airway and checks 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 after each set  F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle)</p>
<p>9. CHECK FOR RETURN OF PULSE</p>	<input type="checkbox"/> <input type="checkbox"/>	<p>A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds)  *B. "Patient has a pulse."</p>

**TWO-RESCUER CPR WITH AED (NO SPINAL INJURY - MANIKIN ONLY)**

PROCEDURES	CRITICAL SKILL
1. RESCUER <b>1</b> ESTABLISH UNRESPONSIVENESS	<input type="checkbox"/> A. Tap or gently shake shoulders <input type="checkbox"/> *B. "Are you OK?" <input type="checkbox"/> C. Determine unconsciousness without compromising cervical spine (neck) injury <input type="checkbox"/> *D. "Call for help" <input type="checkbox"/> *E. "Get AED" (Note: If AED is used, follow local protocol)
2. RESCUER <b>1</b> MONITOR PATIENT FOR BREATHING	<input type="checkbox"/> A. Look for absence of breathing (no chest rise and fall) or gasping breaths, which are not considered adequate (within 10 seconds)
3. RESCUER <b>1</b> - CHECK FOR CAROTID PULSE	<input type="checkbox"/> A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck <input type="checkbox"/> B. Check for presence of carotid pulse for 5 to 10 Seconds <input type="checkbox"/> *C. Absence of pulse <input type="checkbox"/> *D. Immediately starts CPR if no pulse
4. RESCUER <b>1</b> - POSITION FOR COMPRESSIONS	<input type="checkbox"/> A. Locate the compression point on the breastbone between the nipples <input type="checkbox"/> B. Place the heel of one hand on the compression point and the other hand on top of the first so hands are parallel. <input type="checkbox"/> C. Do not intentionally rest fingers on the chest. Keep heel of your hand on chest during and between compressions.
5. RESCUER <b>1</b> - DELIVER CARDIAC COMPRESSION	<input type="checkbox"/> A. Give 30 compressions <input type="checkbox"/> B. Compressions are at the rate of 100 to 120 per minute (30 compressions delivered within 18 seconds) <input type="checkbox"/> C. Down stroke for compression must be on or through compression line <input type="checkbox"/> D. Return to baseline on upstroke of compression
6. RESCUER <b>1</b> - ESTABLISH AIRWAY	<input type="checkbox"/> A. Kneel at the patient's side near the head <input type="checkbox"/> B. Correctly execute head-tilt/ chin-lift maneuver



<p>7. RESCUER <del>1</del> - VENTILATIONS BETWEEN COMPRESSIONS</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>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)  D. Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)</p>
<p>8. CONTINUE CPR FOR TIME STATED IN PROBLEM</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths  B. To check for pulse, stop chest compressions for no more than 10 seconds after the first set of CPR  C. Rescuer at patient's head maintains airway and checks 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 after each set  F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle)</p>
<p>9. <del>(FIRST)</del> RESCUER APPLIES THE AED (DURING THE FIFTH CYCLE OF COMPRESSIONS)</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. <del>Second</del> Rescuer continues compressions while <del>First</del> other rescuer turns (simulated) on AED and applies pads.  B. RESCUERS SWITCH-<del>First</del> rescuer clears victim, allowing AED to analyze. (Judges shall provide an envelope indicating a shockable or non-shockable rhythm)  C. If AED indicates a shockable rhythm, <del>first</del> rescuer clears victim again and delivers shock. *verbalize shock given</p>
<p>10. RESUME HIGH QUALITY CPR</p>	<input type="checkbox"/> <input type="checkbox"/>	<p>A. <del>First</del> Rescuer gives 30 compressions immediately after shock delivery (2 cycles).  B. <del>First</del> Other rescuer successfully delivers 2 breaths.</p>
<p>11. CHANGING RESCUERS</p>	<input type="checkbox"/>	<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</p>

		seconds.
12. CHECK FOR RETURN OF PULSE	<input type="checkbox"/> <input type="checkbox"/>	A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) *B. "Patient has a pulse."

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

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

<p>7. RESCUER-2 - VENTILATIONS BETWEEN COMPRESSIONS</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Rescuer <del>1</del> should place the barrier device (pocket mask/Shield with one way valve) on manikin (<del>OPTION 1: When spinal injury is present, Rescuer No. 2 can hold barrier device on manikin after Rescuer No. 1 correctly places device over the mouth and nose (OPTION 2: Rescuer 1 can place the device on the manikin each time patient is ventilated</del></p> <p>B. Rescuer <del>2</del> Gives 2 breaths 1 second each</p> <p>C. Each breath - minimum of .8 (through .7 liter line on new manikins)</p> <p>D. Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)</p>
<p>8. CONTINUE CPR FOR TIME STATED IN PROBLEM</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths</p> <p>B. To check pulse, stop chest compressions for no more than 10 seconds after the first set of CPR</p> <p>C. Rescuer at patient's head maintains airway and checks for adequate breathing or coughing</p> <p>D. The rescuer giving compressions shall feel for a carotid pulse</p> <p>E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation after each set</p> <p>F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle)</p>
<p>9. <del>FIRST</del> RESCUER APPLIES THE AED (DURING THE FIFTH CYCLE OF COMPRESSIONS)</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. <del>First</del> Rescuer continues compressions while <del>other</del> <del>second</del> rescuer turns on AED and applies pads.</p> <p>B. RESCUERS SWITCH-<del>First</del> rescuer clears victim, allowing AED to analyze. (Judges shall provide an envelope indicating a shockable or non-shockable rhythm)</p> <p>C. If AED indicates a shockable rhythm, <del>first</del> rescuer clears victim again and delivers shock. *verbalize shock given</p>
<p>10. RESUME HIGH QUALITY CPR</p>	<input type="checkbox"/> <input type="checkbox"/>	<p>A. <del>First</del> Rescuer gives 30 compressions immediately after shock delivery (2 cycles).</p> <p>B. <del>Second</del> <del>Other</del> rescuer successfully delivers 2 breaths.</p>

11. CHANGING RESCUERS	□	A. Change of rescuers shall be made in 5 seconds or less and will be completed as outlined in problem. Team must switch every 5 cycles in less than 5 seconds.
12. CHECK FOR RETURN OF PULSE	□ □	<p>*A. <del>A final pulse check will be required at the end of the last set of CPR (within 10 seconds)</del> After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds)</p> <p>*B. "Patient has a pulse."</p>

## MOUTH-TO-MASK RESUSCITATION

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

## AIRWAY OBSTRUCTION (UNCONSCIOUS VICTIM - WITNESSED)

PROCEDURES	CRITICAL SKILL
1. INITIALLY ASSESS LEVEL OF CONSCIOUSNESS	<input type="checkbox"/> A. Tap or gently shake shoulders <input type="checkbox"/> *B. "Are you OK?" <input type="checkbox"/> C. Determine unconsciousness without compromising C-spine injury <input type="checkbox"/> *D. "Call for help" <input type="checkbox"/> *E. "Get AED" (Note: If AED is used, follow local protocol)
2. MONITOR PATIENT FOR BREATHING	<input type="checkbox"/> A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
3. PULSE CHECK	<input type="checkbox"/> A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and muscle in the neck <input type="checkbox"/> B. Check for presence of carotid pulse for 5 to 10 seconds <input type="checkbox"/> *C. Patient has pulse
4. OPEN AIRWAY	<input type="checkbox"/> A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries <input type="checkbox"/> *B. "Look for foreign object"
5. ATTEMPT VENTILATION	<input type="checkbox"/> A. Place barrier device on manikin <input type="checkbox"/> B. Seal mouth and nose <input type="checkbox"/> C. Attempt to give slow breath (1 second duration) <input type="checkbox"/> *D. Identify if there is an obstruction
6. CHECK POSITIONING	<input type="checkbox"/> A. Re-establish airway using correct method and procedure <input type="checkbox"/> *B. Identify continued presence of the obstruction
7. POSITION FOR COMPRESSIONS	<input type="checkbox"/> A. Locate the compression point on the breastbone between the nipples <input type="checkbox"/> B. Place the heel of one hand on sternum the compression point and the other hand on top of the first so hands are parallel <input type="checkbox"/> C. Do not rest fingers on the chest keep heel of your hand on chest during and between compressions.

8. COMPRESSIONS	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Give 30 compressions B. Compressions are at the rate of 100-120 per minute (30 compressions delivered within 18 seconds) C. Down stroke for compression must be on or through compression line D. Return to baseline on upstroke of compression
9. OPEN AIRWAY	<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 foreign object"
10. PERFORM FINGER SWEEP (IF OBJECT IS SEEN)	<input type="checkbox"/> <input type="checkbox"/>	A. Follow with finger sweep, only if the object is seen. (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
11. ATTEMPT VENTILATION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Correctly make effort to administer breath B. Administer second breath, if first successful and check pulse C. If unsuccessful repeat sequence of compressions, mouth check, finger sweep (if object is visible) and attempt to ventilate



## SUCKING CHEST WOUND

PROCEDURES	CRITICAL SKILL	
1. EXPOSE WOUND	<input type="checkbox"/>	*A. Expose entire wound
2. SEAL WOUND AND CONTROL BLEEDING	<input type="checkbox"/> <input type="checkbox"/>	*A. Place occlusive dressing over wound (If occlusive dressing is not available use gloved hand) B. Apply direct pressure as needed to stop the bleeding
3. APPLY AN OCCLUSIVE DRESSING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. 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

## LIFE-THREATENING BLEEDING

PROCEDURES	CRITICAL SKILL
1. DIRECT PRESSURE AND ELEVATION	<input type="checkbox"/> *A. Apply direct pressure with a gloved hand <input type="checkbox"/> *B. Apply a dressing to wound (cover entire wound) and continue to apply direct pressure <input type="checkbox"/> *C. Elevate the extremity except when spinal injury exists <input type="checkbox"/> *D. Bleeding has been controlled <input type="checkbox"/> *E. If controlled, bandage dressing in place
2. IF NOTIFIED THAT BLEEDING IS NOT CONTROLLED, APPLY TOURIQUET	<input type="checkbox"/> A. Apply as per tourniquet skill sheet

### External Bleeding

To Control: 1<sup>st</sup>: direct pressure  
 2<sup>nd</sup>: elevation & direct pressure  
 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. Report possibility of internal bleeding as soon as EMS personnel arrive on scene

## TOURNIQUET

PROCEDURES	CRITICAL SKILL
1. DETERMINE NEED OR USING TOURNIQUET	<input type="checkbox"/> If these conditions are met, a tourniquet may be the only alternative: <input type="checkbox"/> A. Direct pressure has not been successful in stopping bleeding <input type="checkbox"/> B. Elevation of wound above heart has not been successful in stopping of bleeding
2. SELECT APPROPRIATE MATERIALS	<input type="checkbox"/> A. Select a band that will be between 1-4 inches in width and can be wrapped six or eight layers deep for improvised tourniquet or select factory tourniquet.
3. APPLY TOURNIQUET	<input type="checkbox"/> <u>Factory Tourniquet</u> <input type="checkbox"/> A. Wrap band around the extremity proximal to the wound (one inch above but not on a joint) <input type="checkbox"/> <u>Improvised Tourniquet</u> <input type="checkbox"/> B. Apply a bandage around the extremity proximal to the wound (one inch above but not on a joint) and tie a half knot in the bandage <input type="checkbox"/> 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 <input type="checkbox"/> D. Twist the stick until the bleeding is controlled, secure the stick in position
4. APPLY PRESSURE WITH TOURNIQUET	<input type="checkbox"/> A. Do not cover the tourniquet with bandaging material <input type="checkbox"/> *B. Notify other medical personnel caring for the patient
5. MARK PATIENT APPROPRIATELY	<input type="checkbox"/> A. Mark a piece of tape on the patient's forehead "TQ" and time applied
6. REASSESS	<input type="checkbox"/> *A. Assess level of consciousness (AVPU), respiratory status, and patient response

## DRESSINGS AND BANDAGING - OPEN WOUNDS

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

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

### Impaled Objects

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

### Impaled Objects in the Cheek

- \*1. Examine; inside & outside
2. If end not impaled in mouth - pull it out
3. Position head for drainage: if spinal injury, immobilize 1<sup>st</sup> 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. 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- tilt back board, injured side down

### 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:

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.

## 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

### THREE-PERSON LOG ROLL

PROCEDURES	CRITICAL SKILL
1. STABILIZE HEAD	<input type="checkbox"/> *A. Stabilize the head and neck <input type="checkbox"/> B. One rescuer should kneel at the top of the patient's head and hold or stabilize the head and neck in position found.
2. PREPARING THE PATIENT	<input type="checkbox"/> A. A second rescuer should kneel at the patient's side opposite the direction the face is facing. <input type="checkbox"/> B. When placing patient on board place board parallel to the patient. <input type="checkbox"/> C. Quickly assess the patient's arms to ensure no obvious injuries. <input type="checkbox"/> D. 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. <input type="checkbox"/> E. The third rescuer should kneel at the patient's hips.
3. PREPARING THE RESCUER	<input type="checkbox"/> A. Rescuers should grasp the patient at the shoulders, hips, knees, and ankles. <input type="checkbox"/> *B. Give instructions to bystander ( <b>physically show</b> ), if used to support
4. <b>ROLLING THE PATIENT</b>	<input type="checkbox"/> A. While stabilizing the head, the rescuer at the patient's head should signal and give directions, All rescuers should slowly roll the patient toward the rescuers in a coordinated move, keeping the spine in a neutral, in-line position. <input type="checkbox"/> *B. <b>On three, slowly roll. One, two, three roll together.</b> <input type="checkbox"/> C. The head and neck should remain on the same plane as the torso, the rescuer holding the head should not initially try to turn the head with the body. (if the head is already facing sideways, allow the body to come into alignment with the head) <input type="checkbox"/> D. Maintain stability by holding patient with one hand and placing board (if used) with other <input type="checkbox"/> E. Roll the body as a unit onto the board (if used) (board may be slanted or flat) Center the patient on the board. <input type="checkbox"/> F. Place the arm alongside the body

## SPLINTING (RIGID) UPPER EXTREMITY FRACTURES AND DISLOCATIONS

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



### **ELBOW (STRAIGHT POSITION)**

Follow Procedures No. 1 and No. 2 above

### **FINGER/FINGERS**

Immobilize Fracture

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

### **COLLAR BONE**

Support and limit movement of affected area

Follow Procedures No. 1, No. 3 and No. 4 above

### **SHOULDER BLADE**

Support and limit movement of affected area

Follow Procedures No. 1, No. 3 and No. 4 above

**NOTE: Do not reposition dislocations**

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

PROCEDURES	CRITICAL SKILL
1. CARE FOR FRACTURE	<input type="checkbox"/> <input type="checkbox"/> <ul style="list-style-type: none"> <li>*A. Check for distal circulation, sensation, and motor function</li> <li>B. Do not attempt to reduce dislocations (if applies)</li> </ul>
2. IMMOBILIZING FRACTURE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <ul style="list-style-type: none"> <li>A. Support affected limb and limit movement</li> <li>B. Place two cravats (triangular bandage) under wrist/hand</li> <li>C. Place pillow length wise under wrist/hand, on top of cravats (pillow should extend past fingertips)</li> <li>D. Lower limb, adjust cravats to tie</li> <li>E. Tie cravats distal to proximal</li> </ul>
3. SECURING WITH SLING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <ul style="list-style-type: none"> <li>A. Place sling over chest and under arm</li> <li>B. Hold or stabilize arm</li> <li>C. Triangle should extend behind elbow or injured side</li> <li>D. Secure excess material at elbow</li> <li>E. Fingertips should be exposed</li> <li>*F. Reassess distal circulation, sensation, and motor function</li> </ul>
4. SECURING SLING WITH SWATHE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <ul style="list-style-type: none"> <li>A. Use triangle cravat or factory swathe</li> <li>B. Swathe is tied around chest and injured arm</li> <li>*C. Reassess distal circulation, sensation, and motor function</li> </ul>

## 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"> <li>▪ Pain</li> <li>▪ Swelling</li> <li>▪ Deformity</li> </ul> <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"> <li>▪ Do not attempt to reduce dislocations</li> </ul>
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

<p>5. SPLINT</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>A. Maintain support while splinting</li> </ul> <p><u>Living Splint:</u></p> <ul style="list-style-type: none"> <li>A. Immobilize the site of the injury</li> <li>B. Carefully place a pillow or folded blanket between the patients knees/legs</li> <li>C. Bind the legs together with wide straps or cravats</li> <li>D. Carefully place patient on long spine board</li> <li>E. Secure the patient to the long spine board (if primary splint)</li> <li>*F. Reassess distal circulation, sensation, and motor function</li> </ul> <p><u>Padded Board Splint:</u></p> <ul style="list-style-type: none"> <li>A. Splint with two long padded splinting boards (one should be long enough to extend from the patient’s armpit to beyond the foot. The other should extend from the groin to beyond the foot.) (Lower leg requires boards to extend from knee to below the foot.)</li> <li>B. Cushion with padding in the armpit and groin and all voids created at the ankle and knee</li> <li>C. Secure the splinting boards with straps and cravats</li> <li>D. Carefully place the patient on long spine board</li> <li>E. Secure the patient to the long spine board (if primary splint)</li> <li>*F. Reassess distal circulation, sensation, and motor function</li> </ul> <p><u>Other Splints:</u></p> <ul style="list-style-type: none"> <li>A. Immobilize the site of the injury</li> <li>B. Pad as needed</li> <li>C. Secure to splint distal to proximal</li> <li>D. Carefully place patient on long spine board</li> <li>E. Secure the patient to the long spine board (if primary splint)</li> <li>*F. Reassess distal circulation, sensation, and motor function</li> </ul>
<p>6. REASSESS</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>*A. Assess patient response and level of comfort</li> </ul>

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

PROCEDURES	CRITICAL SKILL
1. CARE FOR FRACTURE	<input type="checkbox"/> *A. Assess for distal circulation, sensation, and motor function <input type="checkbox"/> B. Do not attempt to reduce dislocations (if applies)
2. IMMOBILIZING FRACTURE	<input type="checkbox"/> A. Support affected limb and limit movement <input type="checkbox"/> B. Place three cravats (triangular bandage) under ankle/foot <input type="checkbox"/> C. Place pillow length wise under ankle/foot, on top of cravats (pillow should extend 6 inches beyond foot) <input type="checkbox"/> D. Lower limb, adjust cravats to tie <input type="checkbox"/> E. Tie cravats distal to proximal <input type="checkbox"/> F. Elevate with blanket or pillow <input type="checkbox"/> *G. Reassess distal circulation, sensation, and motor function

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

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

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

## SPLINTING - FLAIL CHEST

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

## ONE RESCUER BLANKET DRAG

PROCEDURES		CRITICAL SKILL
1. VICTIM SUPINE ON GROUND	<input type="checkbox"/> <input type="checkbox"/>	A. Properly prepare blanket for use in blanket drag B. Spread blanket alongside patient with approximately one half the width gathered lengthwise into pleats
2. POSITION PATIENT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/> <input type="checkbox"/>	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

PROCEDURES	CRITICAL SKILL
1. POSITIONING	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. Rescuer 1 - Kneel at the head of the patient and place one hand under each of the shoulders</li> <li><input type="checkbox"/> B. Rescuer 2 - Kneel by the patients feet and grasp the patient's wrist</li> </ul>
2. RAISING PATIENT TO A SITTING POSITION	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. Direct rescuer 2-to pull patient into a sitting position.</li> <li><input type="checkbox"/> B. Rescuer 1 - push patient's shoulders up, slip your arms under the patient's armpits and grasp wrist.</li> <li>C. Rescuer 2 - Gently pull on patient's arms</li> </ul>
3. POSITIONING AND LIFTING	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. Rescuer 1 -Once the patient is in a semi sitting position have rescuer 2 crouch down and grasp the patient's legs behind the knees.</li> <li><input type="checkbox"/> B. Rescuer 1-Directs rescuer 2 so you both stand at the same time. Then move as a unit when carrying the patient.</li> <li><input type="checkbox"/> C. The rescuer at the head to direct the rescuer at the feet when to stop the carry and when to place the patient down in a supine or seated position.</li> </ul>

## SHIRT DRAG

PROCEDURES		CRITICAL SKILL
1. POSITIONING	<input type="checkbox"/>	A. Rescuer - Kneel at the head of the patient and place one hand under each of the shoulders
2. MOVING PATIENT	<input type="checkbox"/> <input type="checkbox"/>	A. Rescuer - Grasp shirt at the shoulder area B. Drag patient in a straight (keep spine as straight as possible avoid dragging a patient sideways, by one arm, or one leg. A sideways drag can cause twisting motions of the spine that could aggravate existing injuries.)
3. MOVING PATIENT DOWN STAIRS OR INCLINE	<input type="checkbox"/>	A. When using a drag to move a patient down stairs or down an incline, grab the patient under the shoulders and pull the patient head first as you walk backward. If possible try to cradle the patient's head in your forearms as you drag.

## ESTABLISHING AIRWAY-SUSPECTED CERVICAL SPINE (NECK) INJURY

PROCEDURES		CRITICAL SKILL
1. STABILIZE HEAD	<input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/>	A. Use modified jaw thrust maneuver without causing over-extension of victim's neck
3. CHECK FOR BREATHING	<input type="checkbox"/> <input type="checkbox"/>	A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds) *B. State that the victim is/is not breathing
4. MAINTAIN OPEN AIRWAY	<input type="checkbox"/>	A. Do not compromise suspected neck injury

## SHOCK

PROCEDURES	CRITICAL SKILL
<p>1. CHECK FOR SIGNS AND SYMPTOMS OF SHOCK</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> *A. Check restlessness; anxiety; altered mental status; increased heart rate; normal to slightly low blood pressure; mildly increased breathing rate; pale (or bluish) skin (in victim with dark skin examine inside of mouth and nailbeds for bluish coloration.</li> <li><input type="checkbox"/> *B. Check for cool, moist skin; sluggish pupils; and nausea and vomiting.</li> <li><input type="checkbox"/> *C. Check for weakness</li> </ul>
<p>2. TREATMENT</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> A. Ensure the ABCs are properly supported.</li> <li><input type="checkbox"/> B. Control external bleeding.</li> <li><input type="checkbox"/> C. Keep the patient in a supine position.</li> <li><input type="checkbox"/> *D. Calm and reassure the patient, and maintain a normal body temperature.</li> <li><input type="checkbox"/> E. 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)</li> <li><input type="checkbox"/> F. <b>Continue to monitor and support ABCs</b></li> <li><input type="checkbox"/> G. Do not give the patient anything by mouth. Do not give any fluids or food, and be alert for vomiting.</li> <li><input type="checkbox"/> *H. <b>Monitor the patient's <del>vital signs</del> ABCs. This must be done at least every five minutes.</b></li> <li><input type="checkbox"/> *I. Reassure and calm the patient</li> </ul>

## IMMOBILIZATION - LONG SPINE BOARD (Backboard)

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

## IMMOBILIZATION OF CERVICAL SPINE

PROCEDURES	CRITICAL SKILL
1. 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
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"/> *A. Inspect and palpate for injuries or signs of injuries using: DOTS acronym <input type="checkbox"/> B. Remove clothing or jewelry as necessary
4. BANDAGE ANY WOUND	<input type="checkbox"/> A. Any neck wounds
5. APPLY CERVICAL SPINE IMMOBILIZATION	<input type="checkbox"/> 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
6. 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
7. REASSESS	<input type="checkbox"/> *A. Reassess distal circulation, sensation, and motor function <input type="checkbox"/> *B. Assess patient response and level of comfort

## BURNS

PROCEDURES	CRITICAL SKILLS	
1. DETERMINE BURN TYPE	□	*A. Determine type <ul style="list-style-type: none"> <li>▪ Thermal</li> <li>▪ Chemical</li> <li>▪ Electrical</li> </ul>
2. DETERMINE BODY SURFACE AREA	□	*A. Determine Body Surface Area (BSA) using rule of nines
3. BURN CARE (All Types)	□	*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.
	□	C. Do not flush with water unless they involve an area less than 9% of the total body surface area)
	□	D. Remove smoldering clothing (do not remove any clothing that is melted onto the skin) jewelry
	□	*E. Continually monitor the airway for evidence of closure
	□	F. Prevent further contamination. Keep the burned area clean by covering it with a dressing. Cover partial- and full-thickness burns with dry clean dressings. In most cases place dry, sterile dressings onto the burned area.
	□	*G. Do not use any type of ointment, lotion or antiseptic
	□	*H. Do not break blisters
	□	*I. Ensure patient does not get hypothermic
	□	J. If eyes or eyelids have been burned, place dressings or pads over them. Moisten these pads with sterile water if possible. <b>Both eyes will be covered.</b>
	□	<b>K. If serious burn (partial or full-thickness burns) involves the hands or feet, always place a clean pad between toes or fingers when completing the dressing.</b>

<p>4. CARE FOR CHEMICAL BURNS</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>A. Protect yourself from exposure to hazardous materials</p> <p>B. Wear gloves, eye protection, and respiratory protection</p> <p>*C. Flush the burned area for at least 20 minutes. (If possible and it can be done quickly, try to identify any chemical powders before applying water)</p> <p>D. Apply a dry, clean dressing.</p> <p>E. If dry lime is the agent causing the burn, do not flush with water. Instead use a dry dressing to brush the substance off the patient's skin, hair, and clothing.</p> <p>F. Remove any contaminated clothing or jewelry.</p> <p>G. Once this is done, you may flush the area with water.</p> <p>H. Use caution not to contaminate uninjured areas when flushing or brushing</p>
<p>5. CARE FOR ELECTRICAL BURNS</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>*A. Ensure safety before removing patient from the electrical source</p> <p>*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</p> <p>*C. Monitor the patient closely for respiratory and cardiac arrest</p> <p>D. Treat the soft tissue injuries associated with the burn</p> <p>*E. Look for both an entrance and exit wound</p>
<p>6. REASSESS</p>	<input type="checkbox"/>	<p>*A. Reassess level of consciousness (AVPU), respiratory status, and patient response</p>

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



## EARLY OR SUPERFICIAL FROSTBITE

PROCEDURES		CRITICAL SKILLS
1. ASSESS FOR FROSTBITE AND COLD INJURIES	<input type="checkbox"/>	*A. Patient exhibits signs and symptoms of frostbite or cold injuries
2. ASSESS FOR EARLY OR SUPERFICIAL FROSTBITE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*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	<input type="checkbox"/>	*A. Reassess level of consciousness (AVPU), respiratory status and patient response

## LATE OR DEEP COLD INJURY

PROCEDURES	CRITICAL SKILLS	
1. ASSESS FOR FROSTBITE AND COLD INJURIES	<input type="checkbox"/>	*A. Patient exhibits signs and symptoms of frostbite or cold injuries
2. ASSESS FOR LATE OR DEEP COLD INJURY	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	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	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*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"> <li>▪ Break blisters</li> <li>▪ Rub or massage area</li> <li>▪ Apply heat</li> <li>▪ Re-warm</li> <li>▪ Allow the patient to walk on the affected extremity</li> </ul>
4. REASSESS	<input type="checkbox"/>	*A. Reassess level of consciousness (AVPU), respiratory status and patient response

## MILD HYPERTHERMIA (HEAT)

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

## SEVERE HYPERTHERMIA

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

## FIRST AID STATEMENTS OF FACT

1. The complete chain of professionals and services linked together to provide emergency care is the EMS system. (Ch. 1 page 3)
2. The primary concern of an Emergency Medical Responder at an emergency is personal safety. (Ch. 1 page 11)
3. Providing emergency care using minimal equipment is one of the four main duties of an Emergency Medical Responder at the scene of an emergency. (Ch. 1 page 12-13)
4. An injured patient asks if he is hurt. Your response should be we will do everything we can to see that you are cared for properly. (Ch. 3 page 48)
5. Before providing care for a consenting adult, you should tell the patient what you are going to do. (CH. 2 page 23)
6. Unless otherwise stated, all references to body structures are made when the body is in anatomical position. (Ch. 4 page 56)
7. The term that can be used in describing the front of the heart is anterior. (Ch. 4 page 56)
8. During normal metabolism, the cell converts glucose into energy. (Ch. 5 page 88)
9. Certain conditions can cause the capillaries in the lungs to leak fluid. This is caused by an increase in permeability. (Ch. 5 page 89)
10. Cardiac output is a function of both stroke volume and heart rate. (Ch. 5 page 93)
11. When performing a one-rescuer drag, you should always drag the patient lengthwise. (Ch. 6 page 102)
12. Hepatitis B is the disease that causes the greatest number of deaths among health care workers. (Ch. 3 page 38)
13. Three rescuers is the minimum number of rescuers recommended to perform a direct ground lift. (Ch. 6 page 104)
14. Ask one question at a time, and allow the patient ample time to respond is the best approach to interviewing a patient. (Ch. 7 page 126)

15. A verbal transfer of care report does not typically include mileage from scene to hospital. (Ch. 7 page 128)
16. The patient's vital signs and medical history are examples of patient data. (Ch. 8 page 135)
17. A Patient's name is not considered part of the minimum data set documenting an EMS call. (Ch. 8 page 136)
18. The moment when both heartbeat and respirations stop, a patient is referred to as clinically dead. (Ch. 9 page 144)
19. Inspiration (inhalation) occurs when the volume inside the chest cavity increases and the lungs expand. (Ch. 9 page 143)
20. Jaw-thrust maneuver is recommended for opening the airway of a patient with possible spine injury. (Ch. 9 page 148)
21. Mouth-to-mask is the technique recommended as the first choice for a solo rescuer to provide rescue breaths. (Ch. 9 page 149)
22. When positioning a pocket face mask, the base of the mask should rest between the patient's lower lip and the chin. (Ch. 9 page 167)
23. The recommended duration of a breath delivered to an adult patient who is in respiratory arrest is 1 second. (Ch. 10 page 187)
24. While performing mouth-to-mask ventilations on an adult, the recommended rate is one breath delivery every 5-6 seconds. (Ch. 9 page 151)
25. During rescue breathing, it is possible for air to enter the patient's stomach. The best way to minimize this problem is to reduce the force of ventilation. (Ch. 9 page 154)
26. One sign of a partial airway obstruction is gurgling. It may be caused by fluids in the upper airway. (Ch. 9 page 155)
27. A patient who is unable to cough with a partial airway obstruction should be cared for as if he had a complete obstruction. (Ch. 9 page 155)
28. For an unresponsive adult with a complete air obstruction, you should begin chest compressions. (Ch. 9 page 155)
29. An oropharyngeal airway should be used on non-breathing patients who are unresponsive with no gag reflex. (Ch. 9 page 160)

30. When measuring for fit, a properly sized oropharyngeal airway will extend from the center of a patient's mouth to the angle of the lower jaw. (Ch. 9 page 161)
31. It is appropriate to use a nasopharyngeal airway on unresponsive patient who has suffered head and facial trauma. (Ch. 9 page 162)
32. One function of the regulator on an oxygen tank is to reduce tank pressure. (Ch. 10 page 176)
33. The appropriate flow rate for a nasal cannula is 1-6 LPM. (Ch. 10 page 180)
34. The minimum flow rate for a nonrebreather mask is 10 LPM. (Ch. 10 page 181)
35. The most appropriate location to check for a pulse on an unresponsive adult is the neck. (Ch. 11 page 193)
36. If respiratory arrest and cardiac arrest occur the Brain cells begin to die in several minutes. (Ch. 11 page 191)
37. When assessing a pulse on a suspected cardiac arrest victim, you should feel for no more than 10 seconds. (Ch. 11 page 193)
38. During CPR, compressions should be delivered at a rate of 100-120 per minute. (Ch. 11 page 196)
39. The correct depth of compressions for the adult patient during CPR is at least two inches. (Ch. 11 page 196)
40. During one-rescuer CPR on an adult, **deliver 30 compressions followed by two ventilations. ventilations are delivered two breaths for every 30 compressions.** (Ch. 11 page 197)
41. When caring for a patient in cardiac arrest, interruptions in chest compressions should be kept to 10 seconds or less. (Ch. 11 page 197)
42. The most common type of rhythm that an AED will help correct is ventricular fibrillation. (Ch. 11 page 207)
43. The upper chest electrode pad is placed on the right side of the chest. (Ch. 11 page 209)
44. You are caring for a victim of cardiac arrest and just delivered a shock with the AED. You should then continue chest compressions. (Ch. 11 page 210)
45. The most common operating problem with an AED is improperly attached electrode pad. (Ch. 11 page 211)

46. When performing two-rescuer CPR on an adult, rescuers should switch roles every two minutes. (Ch. 11 page 202)
47. After a shock is delivered using an AED, the Emergency Medical Responder should immediately continue CPR. (Ch. 11 page 210)
48. A patient initially appears to be unresponsive but opens his eyes when you introduce yourself to him. Using the AVPU scale, verbal is how you would classify this patient's mental status. (Ch. 12 page 223)
49. Popliteal is considered a central, rather than peripheral, pulse. (Ch. 12 page 225)
50. A pulse rate above 100 beats per minute is considered abnormal for an adult. (Ch. 12 page 226)
51. The term *perfusion* is best defined as the circulation of oxygenated blood throughout the body. (Ch. 12 page 221)
52. Both the systolic and diastolic pressures are measured when blood pressure taken by auscultation is correct. (Ch. 12 page 229-230)
53. A standard blood pressure cuff is used to obtain a blood pressure reading in the brachial artery. (Ch. 12 page 227-228)
54. For most adults, a systolic blood pressure below 90 mm Hg is considered abnormal. (Ch. 12 page 228)
55. The purpose of the primary assessment is to identify and correct life-threatening problems. (Ch. 13 page 240)
56. The best source of information to determine what is wrong with a responsive patient comes from the patient. (Ch. 13 page 260)
57. The first two steps in the primary assessment are to form a general impression and assess mental status. (Ch. 13 page 250)
58. During primary assessment, you should check for uncontrolled bleeding. (Ch. 13 page 255)
59. A sign is what you see, hear, feel, and smell when examining the patient. (Ch. 13 page 240)
60. A symptom is what the patient tells you is wrong. (Ch. 13 page 240)
61. When assessing a pulse, you should assess for rate, strength, and rhythm. (Ch. 12 Ch. 12 page 225)



62. When assessing respirations, you should assess for depth, rate, sound and ease of breathing. (Ch. 12 page 223)
63. A respiratory rate of less than 10 breaths per minute in an adult likely indicates a serious condition. (Ch. 12 page 225)
64. The least likely signs and symptoms to be suggestive of cardiac compromise slurred speech. (Ch. 14 page 277)
65. After the heart pumps blood out of the left ventricle, the blood next travels to the Aorta. (Ch. 14 page 276)
66. A patient complaining of chest pain and showing signs of possible heart attack should be placed in a position of comfort. (Ch. 14 page 283)
67. Respiratory rate of 6 with shallow tidal volume is most indicative of inadequate breathing in an adult. (Ch. 15 page 293)
68. The structure that lies between the mouth and the top of the lungs is the trachea. (page 290)
69. A responsive patient complaining of breathing difficulty will most likely benefit from being placed into sitting upright positions. (Ch. 15 page 293)
70. An obstruction or rupture of a cerebral blood vessel, resulting in a disruption of blood flow to the brain best describes the pathophysiology of a stroke. (Ch. 16 page 310)
71. In late or deep localized cold injury (frostbite), the skin usually appears white and waxy. (Ch. 17 page 342)
72. A patient with an altered mental status and hot, dry skin should be suspected of suffering from heat stroke. (Ch. 17 page 336)
73. Treatment for hypothermia should include all of the following removing any wet clothing, preventing the patient from moving as much as possible, and placing a blanket over and under the patient. (Ch. 17 page 339)
74. Heat loss caused by direct contact between the body and a cool object is called conduction. (Ch. 17 page 334)
75. Difficulty breathing or swallowing are signs of an allergic reaction to a bee sting would be an indication of anaphylaxis. (Ch. 17 page 334)
76. Blood is carried away from the heart to the rest of the body via the arteries. (Ch. 18 page 357)

77. The exchange of nutrients and waste products between the blood and the body's cells takes place at the level of the capillaries. (Ch. 18 page 358)
78. Six liters of blood are contained within the typical adult. (Ch. 18 page 357)
79. The purpose of an occlusive dressing is to create an airtight seal over a wound that penetrates a body cavity. (Ch. 18 page 363)
80. A superficial burn is an injury to the epidermis. (Ch. 18 page 379)
81. According to the rule of nines, a burn to the head and neck regions would be classified as 9% of the body surface area in an adult patient. (Ch. 18 page 380)
82. The proper care for a patient with serious burn covering a large surface area will include keeping the burned area clean by covering it with a dry dressing. (Ch. 18 page 382)
83. Your patient has splashed an unknown chemical into her eye. You should flush her eyes with water at least 20 minutes. (Ch. 18 page 384)
84. You should expect a patient with severe internal bleeding to present signs and symptoms of shock. (Ch. 18 page 366)
85. Distributive shock is best described as excessive dilation of blood vessels. (Ch. 19 page 392)
86. All of the following are signs of early, or compensated, shock altered mental status, cool and pale skin, and increased pulse rate. (Ch. 19 page 395)
87. Check distal CSM; immobilize the forearm ~~foreman~~; immobilize the elbow and wrist; recheck CSM are the most appropriate steps when treating a musculoskeletal injury to the forearm. (Ch. 20 page 422-423)
88. Injuries to the femur are considered serious because they can result in severe, life threatening bleeding. (Ch. 20 page 426)
89. Weakness of left arm and hand are signs and symptoms are most indicative of spine injury. (Ch. 21 page 441)
90. A concussion is best defined as injury to the soft tissue of the brain. (Ch. 21 page 437)
91. Of the following, the most common complication of a closed chest injury involving broken ribs is shallow, inadequate breathing. (Ch. 22 page 455)
92. The recommended method to stabilize an isolated chest injury is to splint the chest using bulky dressings or towels. (Ch. 22 page 455)

93. A pneumothorax occurs when a ruptured lung allows the chest cavity to fill with air. (Ch. 22 page 456)
94. Paradoxical chest wall movement suggests multiple broken ribs. (Ch. 22 page 457)
95. All of the following are ways the respiratory system is affected by aging process heightened ability to detect low levels of oxygen in the blood, increasing weakness of respiratory muscles, and loss of lung elasticity and collapse of small airway structures. (Ch. 24 page 511)
96. The idea behind a triage system is to do the most good for the largest number of people. (Ch. 27 page 566)
97. Apply a moist sterile dressing over the exposed organs and then cover with plastic when a patient has an open wound of the abdomen, and his intestines have been exposed. (Ch. 21 page 464)
98. You find blood freely flowing from a neck wound. As soon as is practical after applying direct pressure, you should apply an occlusive dressing. (Ch. 18 page 378)
99. When breathing and circulation stop, irreversible damage in the patient's brain is likely to begin within 4 to 6 minutes. (Ch. 7 page 123)
100. An object is loosely impaled in your patient's cheek. Its point has broken through the cheek wall into the mouth, and the wound is actively bleeding. You should remove the object and carefully place dressings on both sides of the cheek. (Ch. 18 page 373)

**Note:** all test material comes from Emergency Medical Responder First on Scene 10<sup>th</sup> edition by Christopher J. Le Baudour; published by Pearson; copyright 2016