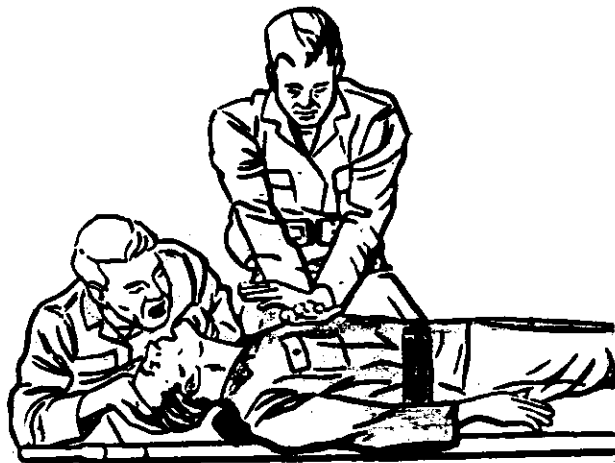


**ESSENTIAL SUBJECT
PERFORMANCE ORIENTED TRAINING**

STUDENT ADVANCE SHEET



**ARTIFICIAL RESPIRATION,
CLOSED-CHEST
HEART MASSAGE, AND
SHOCK CONTROL MEASURES**



JULY 1976

FIRST AID AND FIELD SANITATION STUDENT ADVANCE SHEET

TRAINING STATION #2: Artificial Respiration, Closed-Chest Heart Massage, and Shock Control Measures

OBJECTIVES: Provided with a simulated victim or pneumatic dummy, simulate the administration of mouth-to-mouth (nose) resuscitation to restore breathing.

Provided with a simulated victim, administer the chest-pressure, arm-lift method of artificial respiration to restore breathing.

Provided with a simulated victim or pneumatic dummy, simulate the administration of close-chest heart massage to restore heartbeat.

Provided a simulated victim with any injury under any conditions, battlefield or otherwise, administer shock control measures.

INSTRUCTIONS: The advance sheet included for this training station contains the key teaching points for the instruction which you will soon receive. You should read through this sheet carefully to prepare yourself for instruction in and performance testing of the objectives listed above. You should bring this advance sheet to class with you. Advance sheet for this training station has been broken down into the following parts:

PART I: THE AIRWAY PASSAGES

PART II: ADMINISTERING MOUTH-TO-MOUTH RESUSCITATION

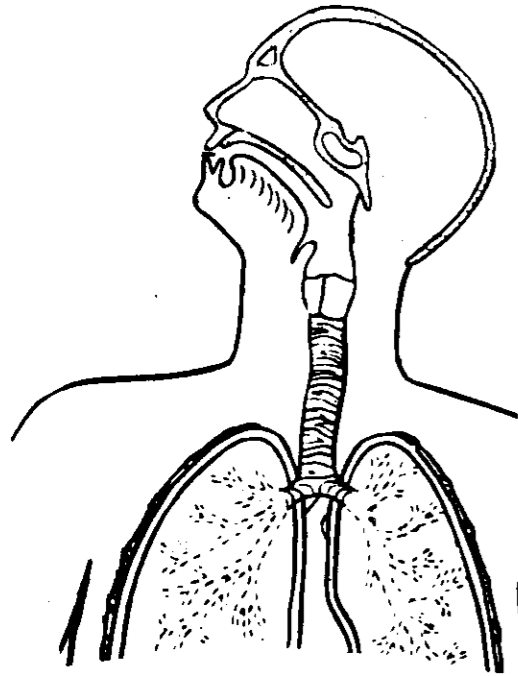
PART III: ADMINISTERING SHOCK CONTROL MEASURES

PART IV: ADMINISTERING THE CHEST-PRESSURE, ARM-LIFT METHOD OF ARTIFICIAL RESPIRATION

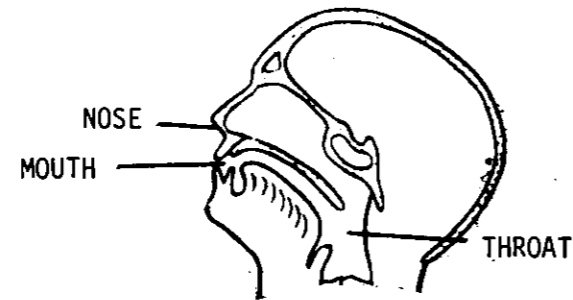
PART V: ADMINISTERING CLOSED-CHEST HEART MASSAGE

PART I: THE AIRWAY PASSAGES

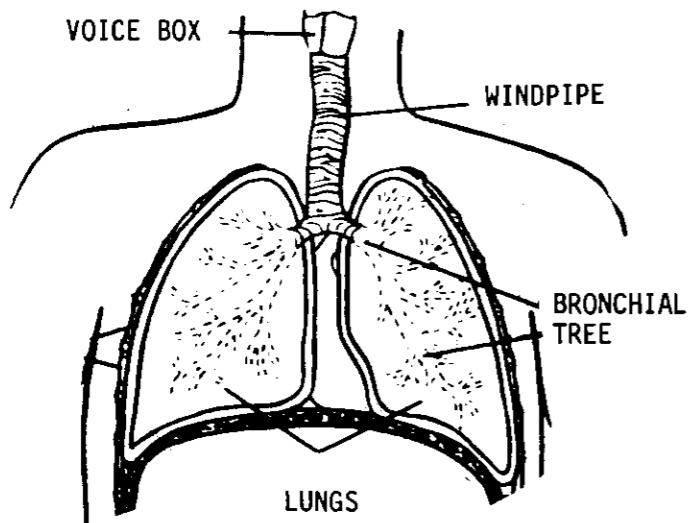
A. THE AIRWAY PASSAGES



B. THE UPPER AIRWAY PASSAGES



C. THE LOWER AIRWAY PASSAGES



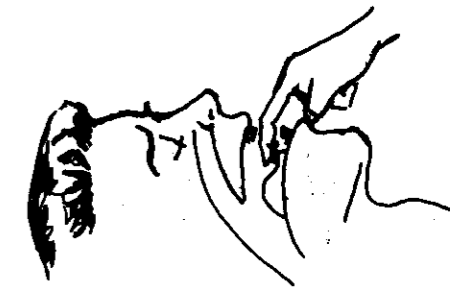
PART II: ADMINISTERING MOUTH-TO-MOUTH RESUSCITATION

STEP A: CLEAR THE UPPER AIRWAY PASSAGES.

(1) TURN the casualty's head to one SIDE.

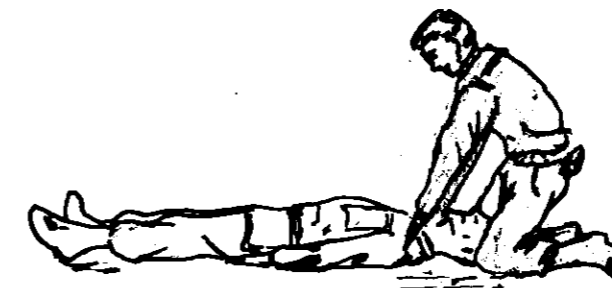


(2) RUN your FINGERS BEHIND the casualty's LOWER teeth and over BACK of his/her tongue to scrape out debris.

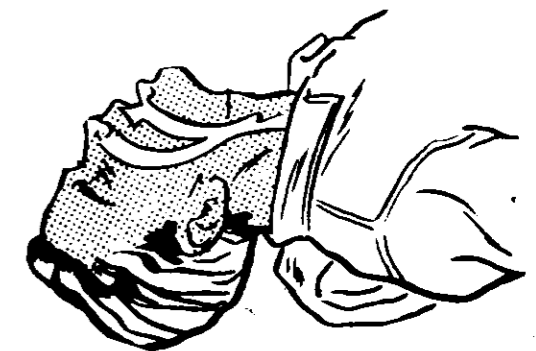


If the casualty's tongue is blocking the airway (collapsed against the windpipe entrance), grasp it between the thumb and forefinger and extend it to its natural position by pulling it forward.

STEP B: POSITION the casualty on his/her back and **POSITION YOURSELF** near the casualty's head.

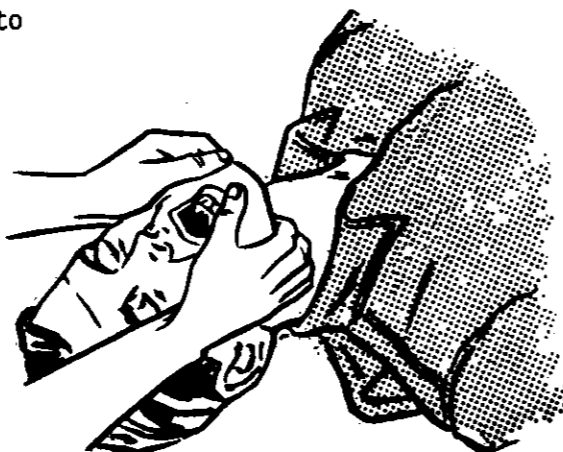


STEP C: POSITION the casualty's head **FACE UP** and **PLACE** a rolled blanket or similar object **UNDER** the casualty's upper shoulders to extend the neck.



STEP D: Adjust the casualty's lower jaw to a jutting out position by using the two-hand jaw-lift:

- (1) GRASP the angles of the casualty's lower jaw with both hands.
- (2) LIFT it forcibly forward.
- (3) OPEN the casualty's lips by pushing the lower lip toward the chin with the thumbs.



-OR-

Adjust the casualty's lower jaw to a jutting out position by using the thumb jaw-lift:

- (1) PLACE your THUMB in the casualty's MOUTH by FORCING it BETWEEN the teeth.



- (2) GRASP the casualty's lower jaw FIRMLY.



- (3) LIFT the casualty's jaw FORWARD.



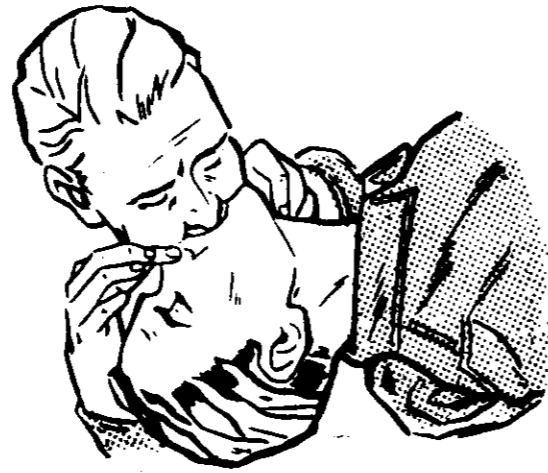
STEP E: SEAL the casualty's airway opening (mouth or nose) which is not to be used while inflating his lungs. If you use the mouth, PINCH the NOSE shut or seal with your cheek while continuing to hold the jaw in a jutting out position. If you have to use the NOSE because of facial injuries which prevent using the mouth or you cannot get the mouth open, SEAL the LIPS by placing your fingers lengthwise across them.



STEP F: TAKE a deep breath and OPEN YOUR mouth wide.



STEP G: PLACE YOUR mouth AROUND the CASUALTY'S mouth (nose) and press down HARD to make an AIRTIGHT seal.



If the casualty's exhalation is noisy, widen the airway and continue to administer mouth-to-mouth (nose) resuscitation by carrying out the following steps:

STEP J: ELEVATE the casualty's jaw more to widen the airway.



STEP K: REPLACE your mouth and again BLOW FORCEFULLY.



STEP H: FOCUS your eyes on the casualty's CHEST and BLOW FORCEFULLY into the casualty's mouth (nose). A rise in the chest will be observed if air is reaching the lungs.



STEP I: REMOVE your mouth, allowing the casualty to EXHALE. LISTEN for the return of air from the casualty's lungs.



STEP L: REMOVE your mouth, allowing the casualty to EXHALE.

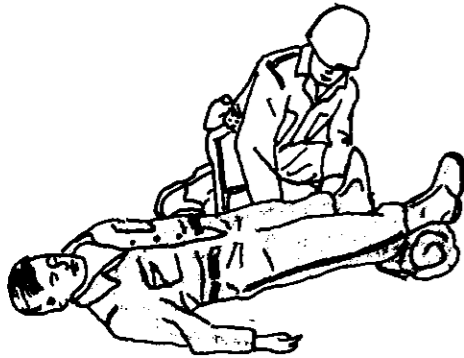
REPEAT THE ACTIONS DESCRIBED IN STEPS K AND L AT THE RATE OF 12-20 CYCLES PER MINUTE UNTIL THE CASUALTY IS ABLE TO BREATHE UNASSISTED OR UNTIL MEDICAL ASSISTANCE ARRIVES AND YOU ARE RELIEVED.



NOTE: IF THE CASUALTY'S STOMACH BEGINS TO BULGE INDICATING THAT SOME AIR HAS ENTERED THE STOMACH, EXPEL THE AIR BY GENTLY PUSHING ON HIS/HER STOMACH.

PART III: ADMINISTERING SHOCK CONTROL MEASURES

STEP A: POSITION a conscious casualty on his/her **BACK**, resting on a **BLANKET** (if readily available) with his/her **FEET** 6-8 inches **HIGHER** than his/her **HEAD**.



-OR-

IF THE CASUALTY IS UNCONSCIOUS, DO THIS INSTEAD:

Position the casualty on his/her **SIDE** or **STOMACH**, resting on a **BLANKET** with his/her **FEET** 6-8 inches **HIGHER** than his/her **HEAD**. **TURN** his/her **HEAD** to one **SIDE** (this will help prevent choking on vomit or other fluids which the casualty may regurgitate).



STEP B: **LOOSEN** clothing which is tight or binding; **LOOSEN** shoe strings but **DO NOT REMOVE** shoes. **RE-MOVE** field equipment.



STEP C: **KEEP** the casualty comfortably **WARM** by **COVERING** with a **BLANKET** or other cover.



STEP D: **REASSURE** the casualty and **RELIEVE** pain, if necessary, by treating any wound or injury and making him/her comfortable.

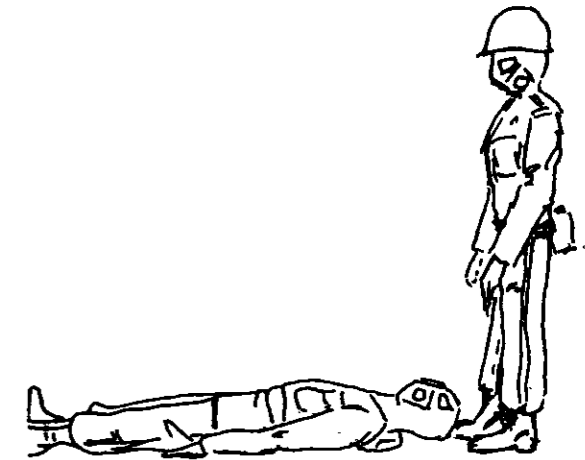


PART IV: ADMINISTERING THE CHEST-PRESSURE, ARM-LIFT METHOD OF ARTIFICIAL RESPIRATION

STEP A: **PERFORM** THE ACTIONS DESCRIBED AND ILLUSTRATED ON PAGES AS2-3 THROUGH AS2-5 AND SUMMARIZED BELOW:

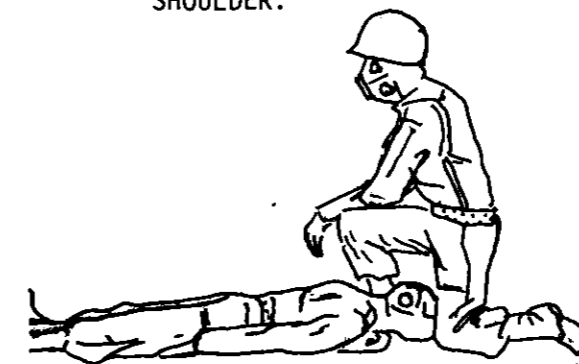
1. Clear the upper airway.
2. Position the casualty on his/her back.
3. Position the casualty's head face up, and place a rolled blanket under his/her upper shoulders to extend the neck.
4. Adjust the casualty's lower jaw to a jutting out position.

STEP B: **STAND** at the casualty's **HEAD**, facing the casualty's **FEET**.

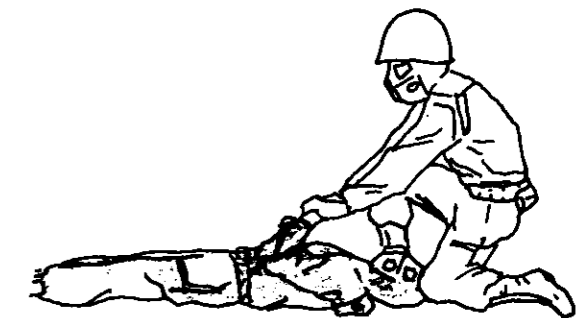


This method of artificial respiration is desirable in areas where NBC agents are suspected and removing the field protective mask is not possible.

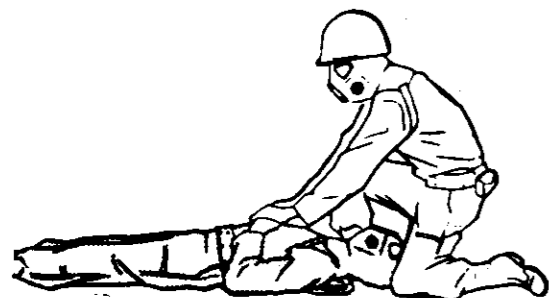
STEP C: **KNEEL** on one knee; **PLACE** your **OPPOSITE** foot to the **OTHER** side of the casualty's **HEAD** and against the casualty's **SHOULDER**.



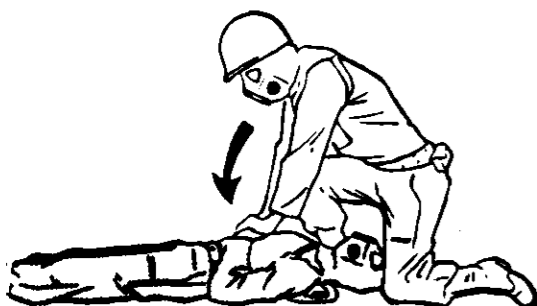
STEP D: **GRASP** the casualty's hands and **HOLD** them over the casualty's **LOWER** ribs.



STEP E: ROCK FORWARD, PRESSING with steady pressure on the ribs until you meet with FIRM RESISTANCE. (This action forces air OUT of the lungs.)

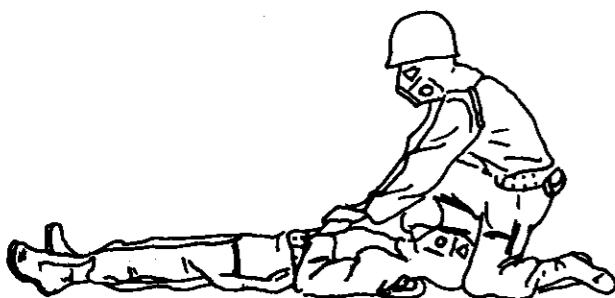


HANDS ON LOWER RIBS



STEADY PRESSURE DOWNWARD

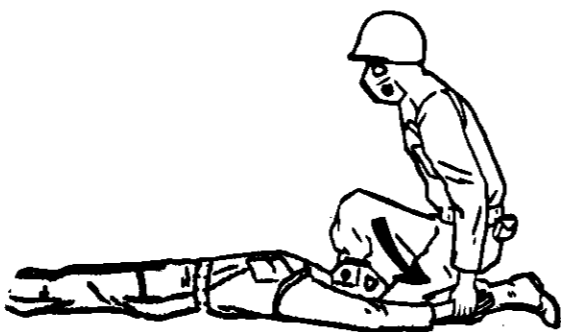
STEP G: REPLACE the casualty's hands on LOWER ribs.



STEP F: LIFT the casualty's arms vertically UPWARD AND BACKWARD above his or her head as far as possible. (This action draws air INTO the lungs.)



ARMS LIFTED UPWARD



ARMS BACKWARD AS FAR AS POSSIBLE

STEP H: REPEAT the cycle described and illustrated in STEPS E and F and summarized below:

GIVE COUNTS OF EQUAL LENGTH TO THE FIRST 3 STEPS - PRESS, LIFT, STRETCH.

THE FOURTH STEP - REPLACE - SHOULD BE DONE AS QUICKLY AS POSSIBLE.

THE FOUR STEPS TOGETHER CONSTITUTE A CYCLE. A CYCLE SHOULD BE REPEATED 12 TO 20 TIMES PER MINUTE UNTIL THE CASUALTY IS ABLE TO BREATHE UNASSISTED OR UNTIL MEDICAL ASSISTANCE ARRIVES AND YOU ARE RELIEVED.

Administer Shock Control Measures By:

PERFORMING THE ACTIONS DESCRIBED AND ILLUSTRATED ON PAGE AS2-8 AND SUMMARIZED BELOW.

STEP A: POSITION the casualty on his/her BACK resting on a BLANKET with his/her FEET 6-8 inches HIGHER than his/her HEAD

-OR-

IF THE CASUALTY IS UNCONSCIOUS, DO THIS INSTEAD:

Position the casualty on his/her SIDE or STOMACH, resting on a BLANKET with his/her FEET 6-8 inches HIGHER than his/her HEAD. TURN HEAD to one SIDE.

STEP B: LOOSEN clothing which is tight or binding; LOOSEN shoe strings but DO NOT REMOVE shoes. REMOVE field equipment.

STEP C: KEEP the casualty comfortably WARM by COVERING with a BLANKET or other COVER.

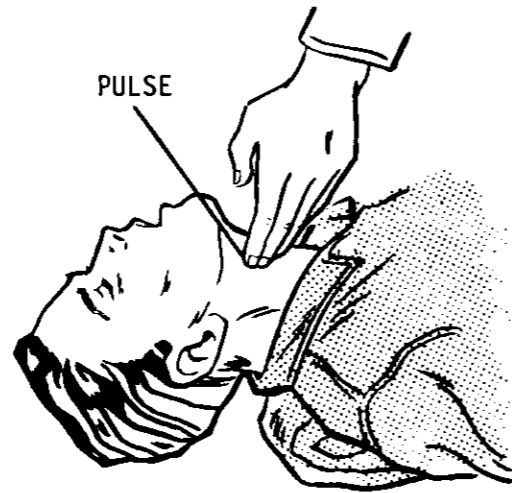
STEP D: REASSURE the casualty and RELIEVE his/her pain, if necessary, by treating any wound or injury and making him/her comfortable.

PART V: ADMINISTERING CLOSED-CHEST HEART MASSAGE

STEP A: CHECK THE CASUALTY FOR PULSE by placing the tips of the fingers on the casualty's neck to the side of his/her windpipe.

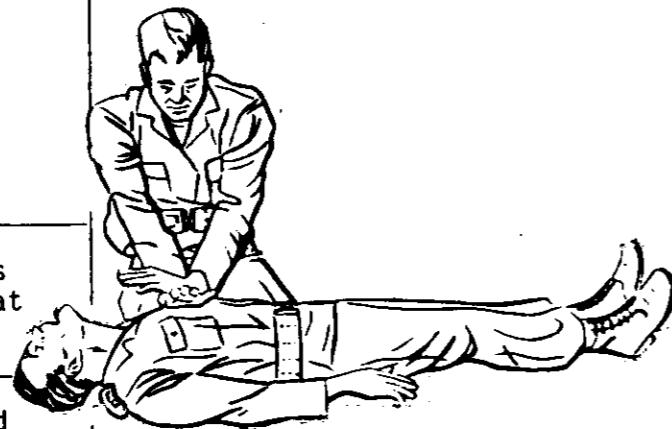
If you do not detect a pulse, DO NOT WASTE TIME checking further but begin closed-chest heart massage immediately. SECONDS COUNT!

NOTE: Position the casualty on a hard surface (floor, ground, etc.) and clear the airway by preparing him for mouth-to-mouth resuscitation as described and illustrated on pages AS2-3 through AS2-5 and summarized below.



STEP B: Clear the upper airway passages by:

- (1) Turning the casualty's head to one side.
- (2) Running your fingers behind lower teeth and over back of tongue.



STEP C: Position the casualty on his back and position yourself at his head.

STEP D: Position the casualty's head face up (insuring that the casualty is on a solid surface) and place a rolled blanket under shoulders.

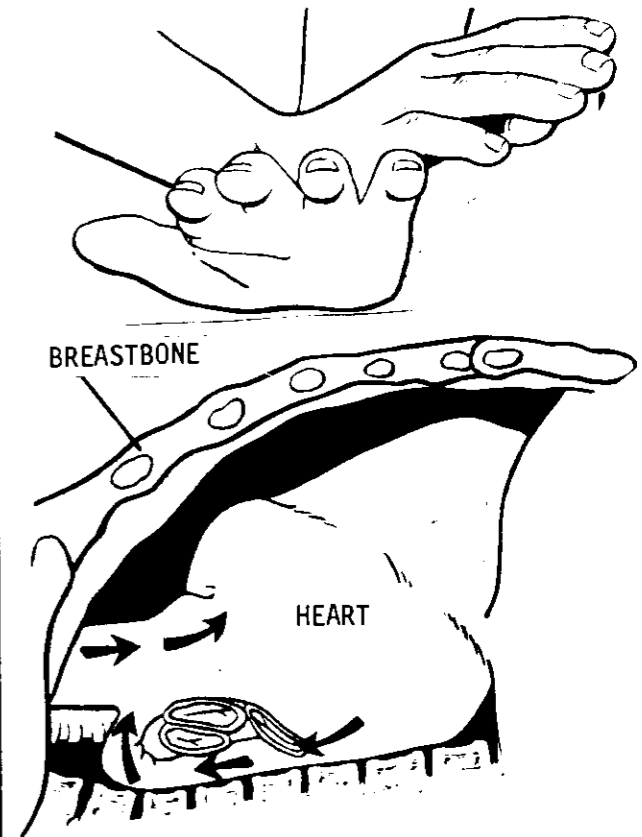
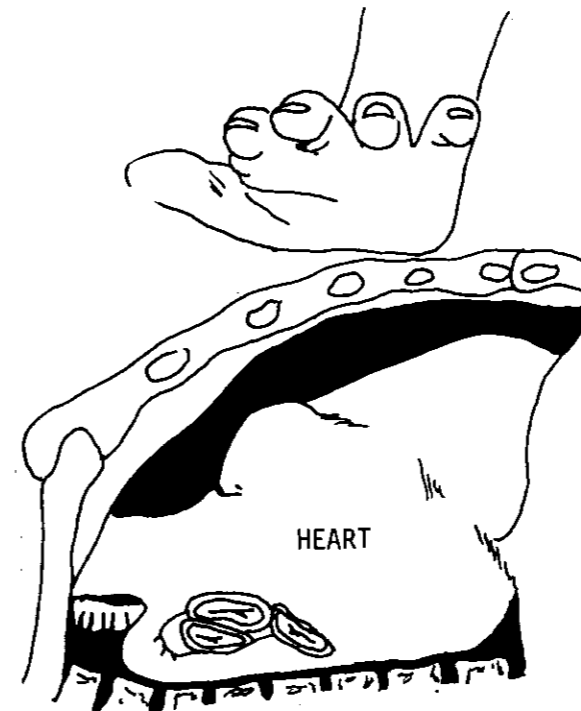
STEP E: Adjust his lower jaw to a jutting out position.

STEP F: KNEEL at a RIGHT ANGLE (SQUARE) to the casualty's chest.

STEP G: Position your hands by:

- (1) PLACING THE HEEL of one of your HANDS on the LOWER HALF of the casualty's breastbone (sternum).
- (2) SPREADING and RAISING the fingers of that hand.

(3) PLACING your OTHER HAND on TOP of the first.

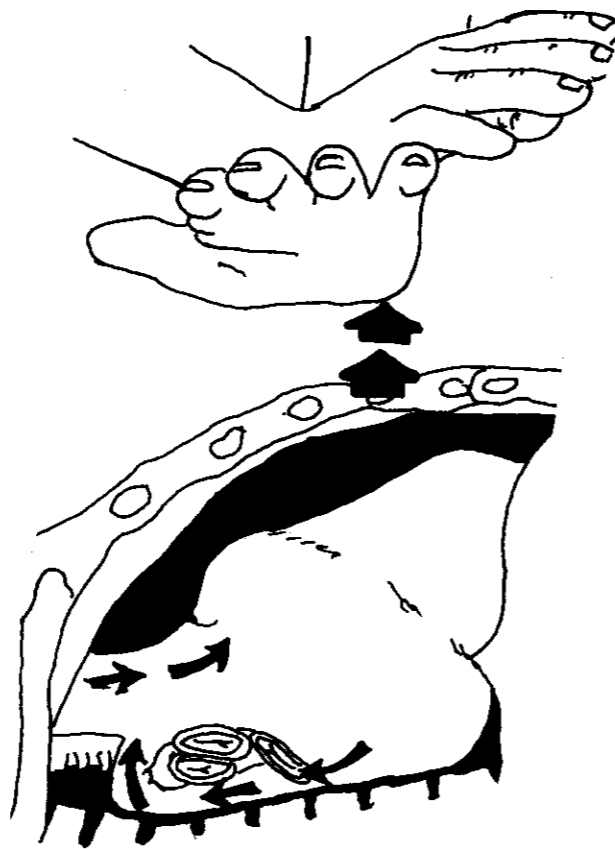


STEP H: HOLDING your arms straight, LEAN forward and bring your SHOULDERS directly ABOVE the casualty's BREASTBONE and PRESS STRAIGHT DOWNWARD hard and steady, applying enough pressure to DEPRESS THE BREASTBONE 1 1/2 to 2 inches.

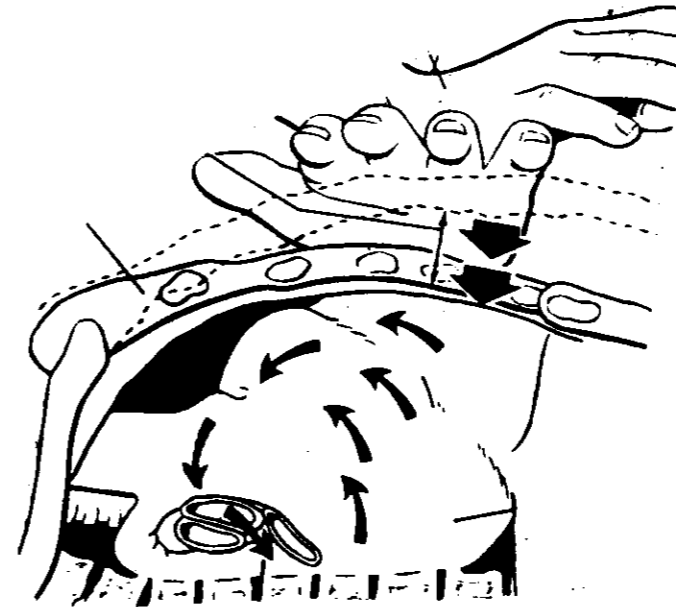
NOTE: If administering closed-chest heart massage to a CHILD, USE ONLY ONE HAND AND DEPRESS THE BREASTBONE ONLY SLIGHTLY. On an INFANT USE ONLY THE FINGER-TIPS.



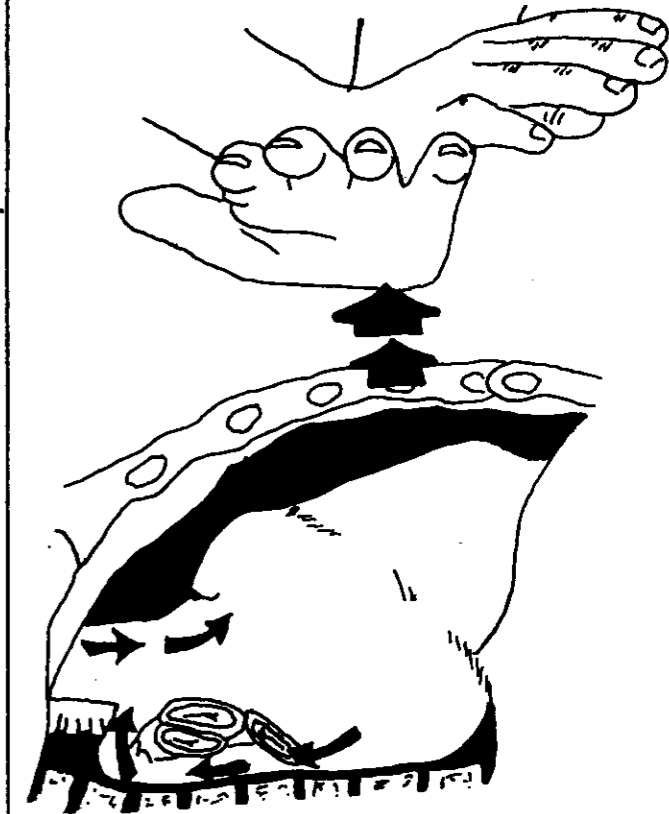
STEP I: RELEASE the pressure IMMEDIATELY by lifting the hands SLIGHTLY.



STEP J: REPLACE your hand; PRESS STRAIGHT DOWNWARD, again applying enough pressure to DEPRESS THE BREASTBONE 1 1/2 to 2 inches.



STEP K: RELEASE the pressure IMMEDIATELY by lifting the hands SLIGHTLY.



STEP L: REPEAT the PRESS-RELEASE cycle 60-80 TIMES PER MINUTE, CHECKING for a pulse every few minutes.

WARNING: DO NOT PERFORM THE ACTIONS DESCRIBED ON A PERSON WHOSE HEART IS BEATING. SERIOUS INJURY TO HIM/HER COULD RESULT.



Administer Shock Control Measures BY:

PERFORMING THE ACTIONS DESCRIBED AND ILLUSTRATED ON PAGE AS2-8 AND SUMMARIZED BELOW:

STEP A: POSITION the casualty on his/her BACK, resting on a BLANKET with his/her FEET 6-8 inches HIGHER than his/her HEAD.

-OR-

IF THE CASUALTY IS UNCONSCIOUS, DO THIS INSTEAD:

Position the casualty on his/her SIDE or STOMACH, resting on a BLANKET with his/her FEET 6-8 inches HIGHER than his/her HEAD. TURN the HEAD to one SIDE.

STEP B: LOOSEN clothing which is tight or binding; LOOSEN shoe strings but DO NOT REMOVE shoes. REMOVE field equipment.

STEP C: KEEP the casualty comfortably WARM by COVERING with a BLANKET or other COVER.

STEP D: REASSURE the casualty and RELIEVE pain, if necessary, by treating any wound or injury and making him comfortable.