CHAPTER V

CASUALTY HANDLING

The proper care of casualties during and immediately following release is an important as locating and freeing them from places of entrapment. Since rescue operations are normally carried out under adverse conditions, it is important that rescue personnel have a good working knowledge of rescue procedures and combine this with good common sense. Speed is important in the removal of casualties, but it should be consistent with safety and proper handling to prevent further injury. The method used will be dependent on the immediate situation, the casualty’s condition, the type of injury, and the available equipment. Immobilization of hands should be used when necessary. Maximum protective measures for the casualty should be exercised at all times.

A. CARRIES AND DRAGS

If for any reason there is immediate danger to the casualty, he/she may have to be removed before emergency care can be administered. When casualties are only slightly injured or must be moved immediately in spite of injuries, one of several methods may be used. The carry or drag that would least likely create further injury should be used.

1. Crutch Method
   This method is used to assist a slightly-injured, conscious casualty. The rescuer places the uninjured arm of the casualty around his neck and grasps the hand or wrist of the casualty. The rescue person passes his other arm around the casualty’s waist and assists him in walking. (See Fig. 36-A) Two people may be used, as shown in Fig. 36-B.

2. Fireman’s Crawl or Drag
   This method may be used to move conscious or unconscious casualties. The rescue personnel person uses a cravat bandage, belt, rope or other substitute over the casualty’s head and under their arms. Kneeling astride or to one side of the casualty, they pass the loop over their own head then drag the casualty to safety. (See Fig. 37-A on page 41) An alternative method is to tie the wrists of the casualty and place his arms over the rescuer’s head. (See Fig. 37-B on page 41) If the casualty is conscious, he/she can clasp his hands together around the rescuer’s neck. The fireman’s drag is an effective method for a heavy casualty.
3. Incline Drag
This drag is used to carry a casualty down a stairway. The casualty is placed on their back, and the rescuer grasps them under the armpits with their head supported against the rescuer’s chest. (See Fig. 38 on page 42) If the casualty is unconscious, their wrists should be tied together.

4. Seat Carry
This is a two-person carry. The casualty is raised to a sitting position with each rescuer supporting the casualty with an arm around their back. The rescuers then slip their other arms under the casualty’s thighs, clasping each other’s wrists. One pair of arms makes a seat, the other pair, a back rest. (See Fig. 39-A on page 42) Both rescuers then stand slowly, lifting the casualty. (See Fig. 39-B on page 42)

5. Fore and Aft Carry
This method should not be used on casualties with back injuries. If the casualty has leg injuries, both legs should be carried under one arm of the rescuer, giving support above and below the leg injury. One rescuer takes a position at the head; the other rescuer at the feet between the casualty’s legs. Both rescuers face toward the feet. The rescuer at the head raises the casualty to a sitting position, then grasps them from behind around the chest and under the armpits. The other rescuer passes their hands from the outside and grasps the casualty under the knees. Both rise together and carry the casualty to safety. (See Fig. 40 on page 43)
Incline Drag
Figure 38

Seat Carry
Figure 39-A, 39-B
6. Chair Carry
   This method may used when a strong chair is available. (See Fig. 41 above)

B. Lifts

1. Three-Person Lift
   When manpower is limited, a three-person lift can be used. When casualties have fractures it is advisable to use four rescuers to do the lift. When more than one rescuer is lifting the casualty, one rescuer should give commands to lift and lower. The commander should be the rescuer at the head or the one who can best observe all of the rescue personnel. When giving commands to lift or lower the casualty, a preparatory command and a command to execute should be given. Example: "Prepare to lift," "lift," "Prepare to lower," "lower.". This will help the rescue personnel to lift or lower together. When placing casualties on a stretcher, the stretcher should be moved close to the casualty before the lift is made. When a casualty is lying on the ground (on their back), they will have "natural hollows" where rescuers can place their hands - behind the neck, the small of the back, below the buttocks, behind the knees, and behind the ankles. It is much easier to lift casualties by using the "natural hollows".

   The steps for a three-person lift are:
   a. All rescuers line up on one side of the casualty, preferably with the tallest at the head, one at the hips, and one at the knees. The stretcher should be placed on the opposite side of the casualty.
   b. All rescuers get down on one knee. The person at the head places their hands under the neck and the small of the back; the person at the hips places their hands under the small of the back and below the buttocks. The person at the feet places their hands under the knees and ankles.
   c. On command to lift, the casualty is lifted to the knee. (See Fig. 42-A on page 44)
   d. On command to lower, casualty is placed on the stretcher. (See Fig. 42-B on page 45)

   Note: If the casualty has to be carried to a stretcher, the rescuers will stand together and carry them as seen in Fig. 43 on page 45.

2. Four-Person Lift
   a. To execute the four-person lift, three rescuers will line up on one side of the casualty and place their hands in the same position as in the three-person lift.
b. The number one person positions themself at the chest of the casualty on the opposite side of three rescuers. Their hands are placed under the shoulder and in the small of the back. This person will give the commands.

c. On command to lift, the casualty is lifted to the rescuers' knees. (See Fig. 44-A on page 46) The middle person will take their hand from under the buttocks, reach across the casualty, and grasp clothing to prevent their turning or falling.

d. At this time the number one rescuer disengages from the casualty and places the stretcher under the casualty. (See Fig. 44-B on page 46)

e. The number one person places their hands under the casualty. The middle person replaces their hand under the casualty.

f. On the command to lower, the casualty is placed on the stretcher.

3. Clothing Lift

This is an excellent lift when the casualty has on adequate clothing. It eliminates the necessity of placing the hands under the victim, thereby reducing the possibility of injury to rescue personnel from broken glass and other debris.

a. Two rescuers position themselves on each side of the casualty, who is placed on his back.

b. All rescuers kneel beside the victim and grasp his clothing. The rescuers at the head grasp the collar of the casualty's shirt behind the neck with one hand. With the other hand, they grasp clothing at the side (small of the back). The rescuers at the feet grasp the clothing at the hips and ankles. Note: The ankles should be tied together or both pants legs held together to prevent the legs from spreading on the lift. (See Fig. 45-A on page 47)
B.
Three-Man Lift
Figure 42-B

Three-Man Carry
Figure 43

45
Four-Man Lift
Figure 44-A

Four-Man Lift
Figure 44-B
c. On command "prepare to lift", all the rescuers rise to a squatting position (off of the knees). On the command "lift", all the rescuers stand, lifting the casualty. The rescuers should lean back slightly as they stand. This makes the lift easier. (See Fig. 45-B on page 48).
d. The rescue personnel sidestep over the stretcher and lower the casualty.

4. Blanket Lift
This lift eliminates the need for placing hands under the casualty. It is also an excellent lift for a heavy casualty.

a. A blanket is laid lengthwise on the ground in line with the casualty. It is folded accordion fashion for about one-half its width.
b. Three rescuers line up on one side of the casualty and roll him carefully onto his side. (See Fig. 46-A on page 49)

c. The number one rescuer slides the blanket up to the casualty and assists in rolling him back onto the blanket.

d. One of the rescuers then comes around to assist number one. As they support the casualty the blanket is pulled from him (the folded portion).

e. The blanket is then rolled as close to the casualty as possible. Be sure all slack is out of the blanket.

f. The rescuers at the head grasp the blanket with one hand at the neck and one at the small of the back. The rescuers at the feet grasp the blanket at the hips and ankles.
g. On command to lift, all the rescuers stand, lifting the casualty. The rescuers should lean back slightly as they stand. (See Fig. 46-B on page 49)

h. The rescue personnel now sidestep over the stretcher and lower the casualty. (See Fig. 46-C on page 50)

C. CARRYING A STRETCHER

Stretcher should be carried as level as possible. Usually the stretcher should be carried feet first (four-person or two person carry) except uphill or downhill. When going uphill or downhill, the head should be the highest point unless injuries indicate differently.

Stretcher bearers should not walk in step. This causes undue bouncing and swaying. If four bearers are used, two are at the head, and two are at the feet. On the command "advance", all bearers step off on the inside foot. If two bearers are used, one is at the head, and one is at the foot. One bearer steps off on the left foot; the other, on the right.

When going over piles of debris and other obstacles, the stretcher should be passed over, rather than walked over. (See Fig. 47 on page 51)

D. BLANKETING A STRETCHER

The purpose of blanketing a stretcher is to treat the casualty for shock, to add to his comfort, to maintain his body temperature, and to protect him from the ropes if he is lashed to the stretcher.

Two blankets are used to blanket a stretcher properly. Remember it is important to put blankets under the casualty as well as over him.

Steps in blanketing a stretcher:
1. Lay one blanket lengthwise across the head end of the stretcher, with the end flush with the tips of the handles. Fold a flap down approximately one foot. Even this blanket up with the canvas at the head of the stretcher. This blanket is placed on the stretcher with blanket evenly divided on each side of the stretcher. Note: For a large person the blanket can be placed with one-third on one side and two-thirds on the other side.
Carrying Stretcher Casualty Over Obstacle
Figure 47
2. Lay second blanket lengthwise up and down the stretcher, approximately 18" down from the head of the stretcher. The height of the casualty will determine this. Fold the second blanket in three equal parts.
3. Open out the two ends of the foot of the top blanket for about two feet to form two flaps.
4. Roll or fold accordion-fashion the overhanging ends of the bottom blanket so they will not drag on the ground when the stretcher is moved.
5. Place the casualty on the stretcher, using a proper lift. Take the end (two flaps) of the blanket over the feet. Place one flap between the ankles. Lay the second flap over the ankles, and tuck it under the legs.
6. The short side of the blanket is placed around the casualty first. A 45-degree fold is made on both sides at the head to prevent wrapping up the face of casualty. These 45-degree folds are made to the inside of the blanket. Tuck both sides of the bottom blanket tightly. When tucking in the blanket, keep the palms of the hands down. This causes less movement to the casualty. (See Fig. 48 on page 52)

E. BLANKET ROLL

A blanket roll is a means of carrying the blankets in a "ready to use" fashion at all times. If the blankets are needed in upper stories, they can be hauled up with rope and be ready for use.

The steps to prepare a blanket roll are:
1. Lay one blanket lengthwise across the head end of the stretcher, with the end flush with the tips of the handles. Fold a flap down approximately one foot. Even this blanket up with the canvas at the head of the stretcher. This blanket is placed on the stretcher with blanket evenly divided on each side of the stretcher. **Note:** For a large person the blanket can be placed with one-third on one side and two-thirds on the other side.

**Blanketing A Stretcher**

**Figure 48**

**Note:** The stokes stretcher is blanketed in the same manner as the army litter.
2. Lay the second blanket up and down the stretcher, folded in three equal parts, approximately 18" down from the head. Do not fold flaps for the feet.

3. Fold the first blanket (bottom) accordion-fashion in hand-width folds; leave the ends toward the inside.

4. Fold foot end of the second blanket toward the head of the stretcher. Fold only that part that is below the first blanket.

5. Make a fold at the head of the stretcher with the first blanket. Fold toward the foot. Fold only that part above the second blanket.

6. Roll the blankets in a tight roll from the feet up.

7. The roll is rolled inside the fold at the head of the stretcher. This will make a tight, secure roll. The blanket roll can be tied in a roll or rubber bands may be used to hold it in a roll. When the blanket roll has to be used, place roll on the stretcher. Line the blanket up at the head of the stretcher, and roll out to the feet.

F. LASHING THE STOKES BASKET

To lash a stokes basket, a piece of rope 25 feet long is used. This can be 3/8" or 1/2" rope. If this length of rope is not available, improvise by using body cords or whatever rope is available.

Steps in lashing a stokes basket:

1. Start with a split clove hitch and safety at the "D", near the shoulder-area of the casualty.
2. Lace toward the feet by passing lashing rope through "D's" (not over the top rail of the stokes). Skip every other one of the "D's" when lashing toward the feet. (See Fig. 49-A on page 54)
3. Make a turn around the feet, and lace up back toward the head, using the "D's" that were skipped when lashing toward the feet. (See Fig. 49-B on page 55) (See Fig. 49-C on page 56)
4. Finish with a split clove hitch and safety knot on the opposite side from where the lashing was started.

Note: The split clove hitches need to be put on in such a manner as to pull the hitch together, rather than apart. This is referred to as a "locking clove". An alternative method of lashing can be used by starting at the foot of the stokes at the center of the lashing rope. A rescuer on each side of the stokes speeds up the lashing. A triangle bandage should be used to immobilize the head of unconscious casualties. The eyes should be covered to prevent debris from falling into them.
Lashing a Stokes Basket
Figure 49-A
Lashing a Stokes Basket
(Side View)
Figure 49-B
Lashing a Stokes Basket
(End View)
Figure 49-C