

LESSON ASSIGNMENT

LESSON 3

Litters and Litter Carries.

LESSON ASSIGNMENT

Paragraphs 3-1 through 3-38.

LESSON OBJECTIVES

After completing this lesson, you should be able to:

- 3-1. Identify standard litters and their uses.
- 3-2. Identify the procedures for making improvised litters.
- 3-3. Identify the litter carries and their uses.
- 3-4. Identify the procedures for performing the following:
 - Four-man carry.
 - Two-man carry.
 - Litter post carry.
 - Uphill/upstairs carry.
 - Downhill/downstairs carry.
 - Overhead carry.
 - Low crawl.
 - Litter rotation.

SUGGESTION

After completing the assignment, complete the exercises of this lesson. These exercises will help you to achieve the lesson objectives.

LESSON 3

LITTERS AND LITTER CARRIES

Section I. LITTERS

3-1. ADVANTAGES OF LITTERS

When possible, use a litter to transport a casualty rather than a manual carry. A litter is more comfortable to the casualty and less likely to aggravate his injuries. The use of a litter makes evacuation easier and quicker. It also allows the casualty to be carried much farther than manual carries. A standard litter should be used when available. The Army uses several types of standard litters. Some of the litters used in the field are discussed in paragraphs 3-2 through 3-8. If no standard litter is available, improvise a litter if practical. Some improvised litters are discussed in paragraphs 3-9 through 3-14. Casualties are secured (strapped) to the standard or improvised litter during evacuation.

3-2. STANDARD COLLAPSIBLE LITTER

The standard collapsible litter (figure 3-1) is the most widely used standard litter.

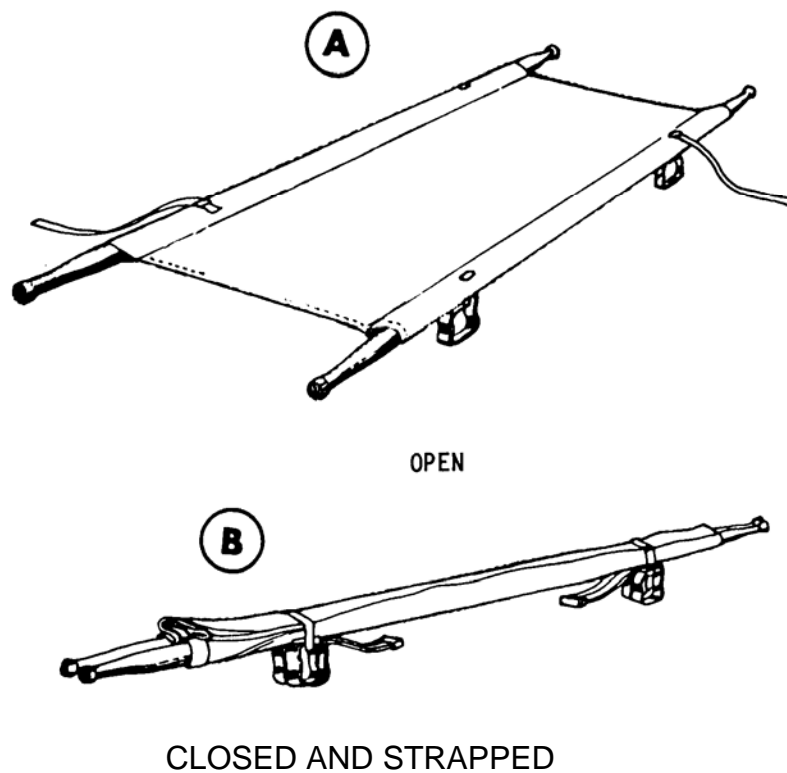


Figure 3-1. Standard collapsible litter.

a. **Components.** The standard collapsible litter consists of:

(1) Two straight, rigid, lightweight aluminum poles with four wooden handles attached to the ends of the poles.

(2) A cover (bed) of cotton-duck-cloth.

(3) Four stirrups, each bolted near the ends of the poles to support the litter when placed on the ground or floor.

(4) Two spreader bars, one near each end of the litter at the stirrups. When opened, they extend across the width of the litter and hold the litter cover taut (figure 3-1 A).

(5) Two litter securing straps (one strap attached to each pole) used to keep the litter closed when it is being stored (figure 3-1 B).

b. **Accessories.** The standard collapsible litter usually comes with two or four patient securing straps (figure 3-2). Each strap consists of a 6-foot length of webbing (2 inches wide) and a buckle with a locking device and spring. These straps are used to secure the casualty to the litter. The casualty should always be secured to the litter while being transported manually (litter carry) and while being transported by a ground or air evacuation vehicle.

c. **Dimensions.** The length of a litter with attached handles is 90 inches. When open, the litter bed measures 72 inches in length and slightly more than 22 inches across. The litter weights about 23 pounds.

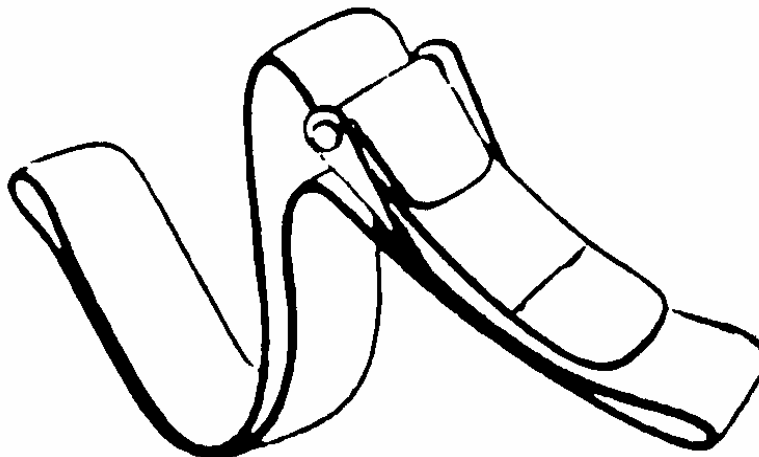


Figure 3-2. Patient securing strap.

3-3. CHEMICAL LITTERS

The standard chemical litter (figure 3-3) consists of aluminum poles painted with chemical agent resistant coating. It conforms to all North Atlantic Treaty Organization (NATO) standards and weighs about 15 pounds. The cover fabric is a honeycomb weave of monofilament polypropylene. The fabric will not absorb agent and is not degraded by decontamination fluids. It is flame retardant and rip resistant. It is treated to withstand weather and sunlight.

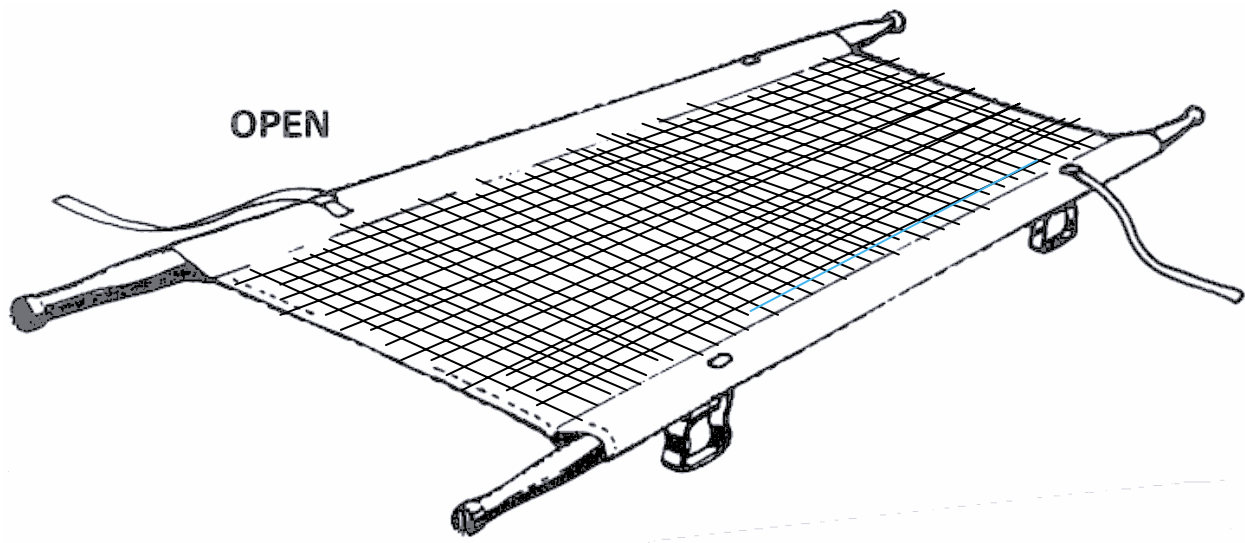


Figure 3-3. Chemical litter.

3-4. FOLDING ALUMINUM LITTER

The folding aluminum litter (figure 3-4) is often used in airdrop and airborne operations.

a. **Components.** The folding aluminum litter is very similar to the standard collapsible litter except that its poles are hinged in the middle (which allows the litter to be folded lengthwise) and the stirrups fold flat against the poles when the litter is collapsed and stored (figure 3-4 A).

b. **Accessories.** The folding aluminum litter usually comes with two or four patient securing straps.

c. **Dimensions.** The length of a litter is 90 inches when open, but is about 50 inches when the litter is folded lengthwise. When open, the litter bed measures 72 inches in length and slightly more than 22 inches across (figure 3-4 B). The litter weighs about 25 pounds.

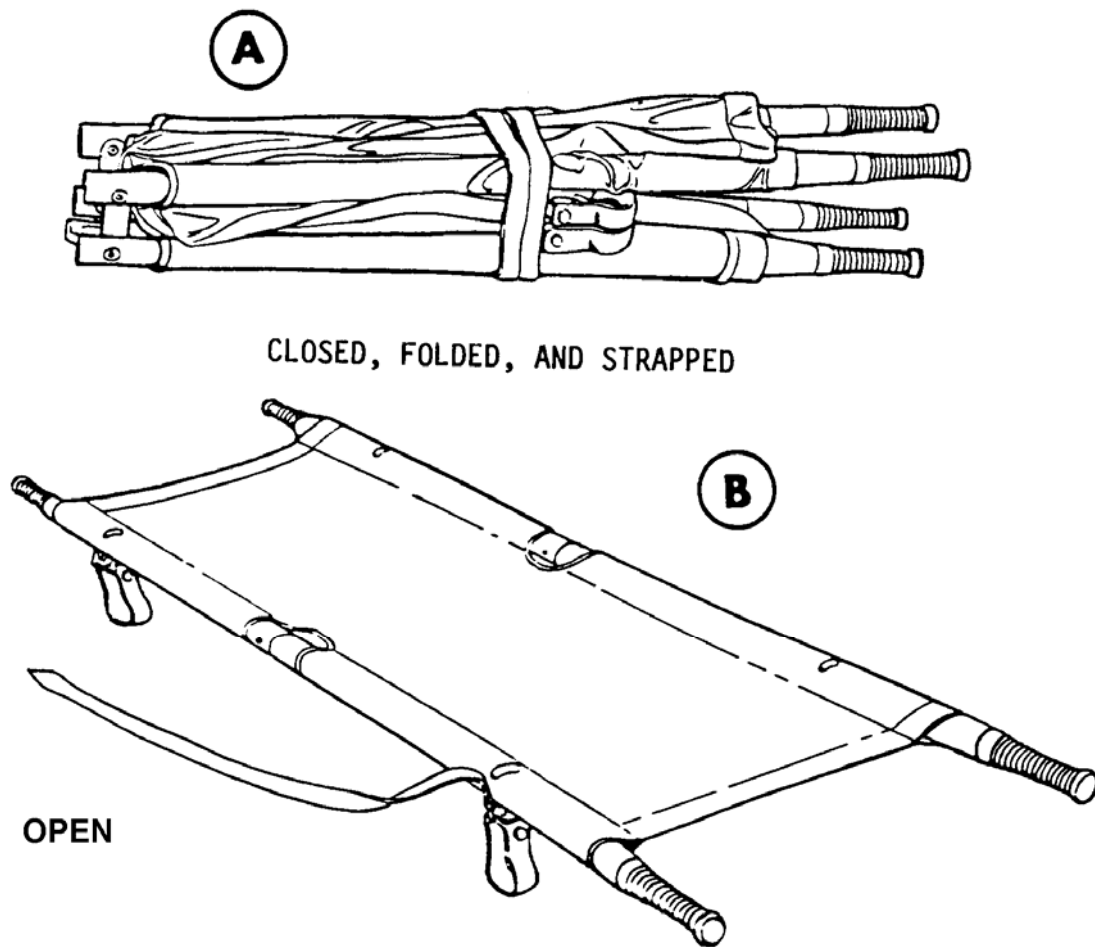


Figure 3-4. Folding aluminum litter.

3-5. POLELESS, SEMIRIGID LITTER

The poleless, semirigid litter (figure 3-5) is normally used to evacuate casualties in mountainous areas or from ships. The litter holds the casualty securely in place while he is being lowered or raised in a vertical position.

a. **Components.** The poleless, semirigid litter consists of:

- (1) A bed of semi-rigid cotton duck cloth with wooden supports.
- (2) Four webbing handles, two at each end, which are grasped by the litter squad when performing a litter carry.

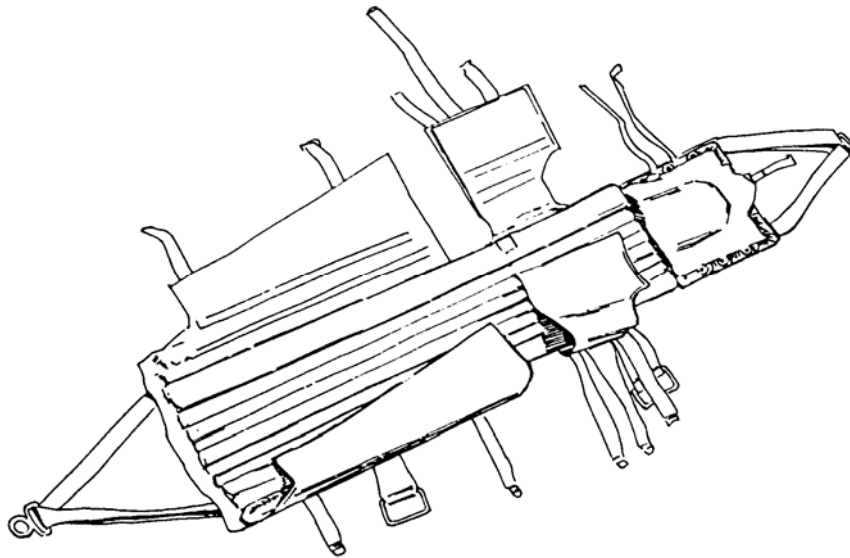


Figure 3-5. Poleless, semirigid litter.

(3) Four loops through which two poles can be inserted to convert the litter into a more rigid litter.

(4) A headpiece to support the casualty's head.

(5) Seven straps to secure the casualty to the litter.

b. **Dimensions.** The litter bed is about 72 inches by 22 inches. Its overall width is about 42 inches, but is about normal width when the flaps are folded over the casualty to keep him secure. The litter weights almost 19 pounds.

3-6. POLELESS, NONRIGID LITTER

The poleless, nonrigid litter (figure 3-6) is the most versatile litter available for use in the field since it can be folded and carried by the combat medic. The litter is designed to accommodate litter poles, thereby becoming a rigid litter that can be used in evacuation vehicles.

a. **Components.** The poleless, nonrigid litter consists of:

(1) Nylon bed, which can be rolled up and carried.

(2) Six carrying loops, three on each side, which can be grasped by the litter squad when performing a litter carry.

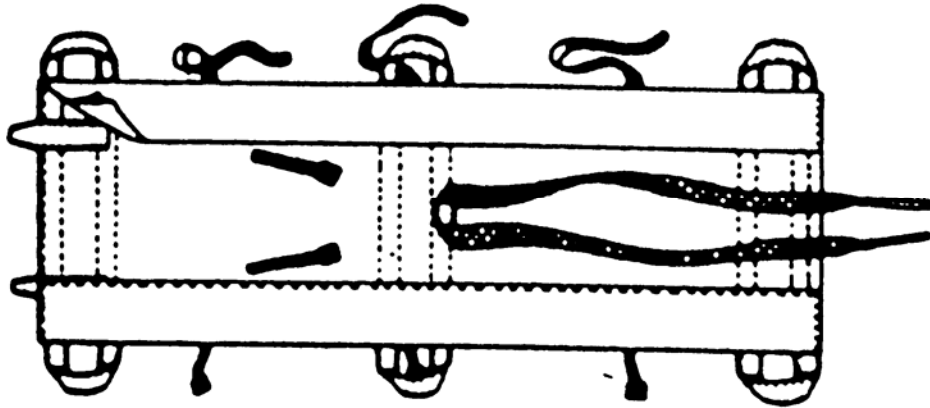


Figure 3-6. Poleless, nonrigid litter.

- (3) Three adjustable restraining straps with buckles.
- (4) Crotch straps.

b. **Dimensions.** The litter is about 78 inches in length and about 26 inches wide. The litter weights about 3.5 pounds.

3-7. STOKES METAL LITTER

The Stokes metal litter (figure 3-7) affords maximum security for the casualty when the litter must be tilted during evacuation. The litter is used to hoist a casualty with spinal injury to a hovering helicopter that cannot land. This procedure is discussed in Lesson 5.

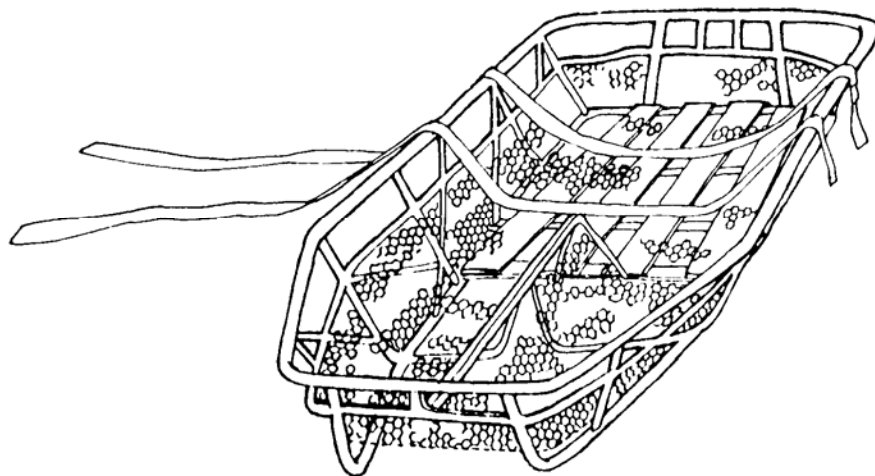


Figure 3-7. Stokes metal litter.

a. **Components.** The Stokes metal litter consists of:

- (1) A steel, tubular frame.
- (2) A bed of wire mesh netting.
- (3) Wooden slats for supporting the casualty's back.
- (4) Webbing securing straps.

b. **Dimensions.** The litter is almost 85 inches in length, 23.5 inches in width, and slightly more than 7 inches in height. The litter weights about 42.5 pounds.

3-8. SKED LITTER

The SKED[®] litter (figure 3-8) is a compact and lightweight transport system used to evacuate a patient over land. This system can be used to rescue a patient in the water with the SKED Flotation system. It can also be rigged for hoist extraction by helicopter.

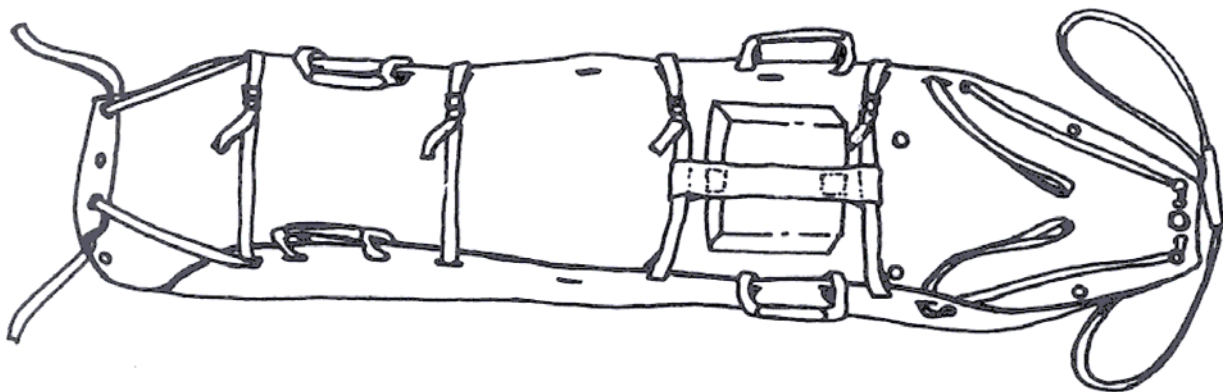


Figure 3-8. SKED litter.

3-9. IMPROVISED POLE AND PONCHO LITTER

An improvised litter can be made using two tent poles and a poncho. Variations of this litter include using straight tree limbs or similar rigid objects for the poles and/or using a blanket instead of a poncho. When the casualty is placed on the litter, his weight holds the litter together.

- a. Open the poncho and lay it flat on the ground.
- b. Lay two poles across the poncho so the poncho is divided into thirds (figure 3-9 A).

- c. Reach in and pull the hood toward you and lay it flat on the poncho. Make sure the drawstrings are not hanging out of the hole. (The hood and drawstrings could catch on brush or other obstacle if left hanging.)
- d. Fold one outer third of the poncho over the pole (figure 3-9 B).
- e. Fold the other outer third of the poncho over its pole (figure 3-9 C).

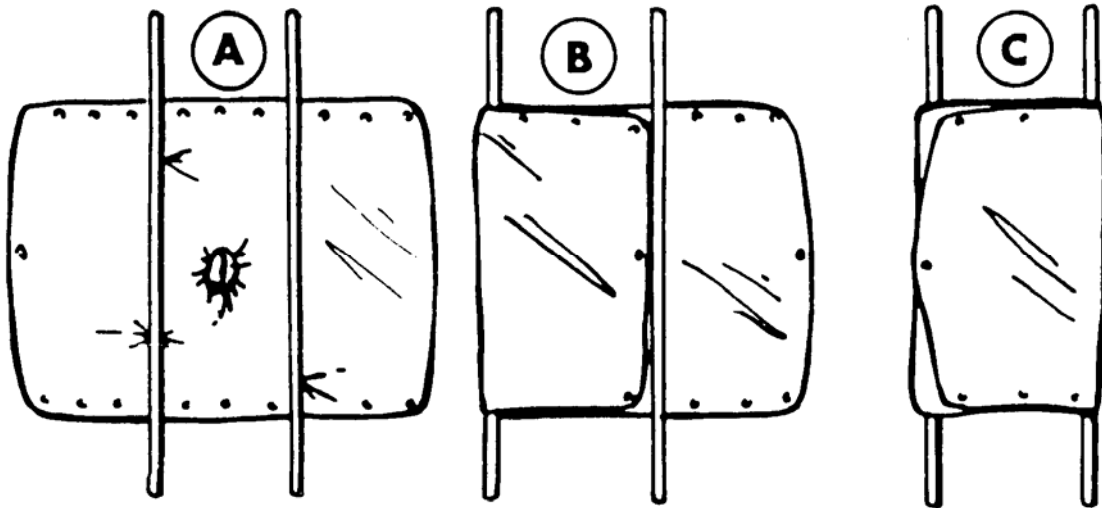


Figure 3-9. Improvised pole and poncho litter.

3-10. IMPROVISED POLE AND JACKET LITTER

An improvised litter can be made using two tent poles and two or three field jackets. Tree limbs or other straight, rigid objects can be used instead of the poles. Heavy shirts or other jackets can be used instead of field jackets.

- a. Close (zip or button) the jackets (or other garments).
- b. Turn the garments inside out, but leave the sleeves inside (figure 3-10 A). Turning the garments inside out puts buttons and zippers on the inside. This keeps the casualty from lying on buttons or zippers (if on top) and keeps them from being snagged on bushes or other obstacles (if on bottom).
- c. Pass the poles through the sleeves (figure 3-10 B).

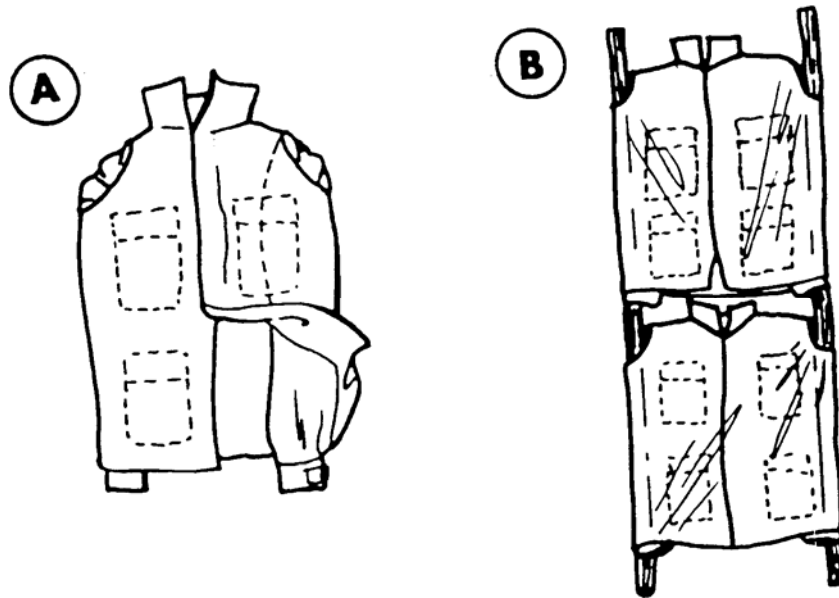


Figure 3-10. Improvised pole and jacket litter.

3-11. IMPROVISED POLE AND SACK LITTER

An improvised litter can be made using two tent poles or similar rigid objects and two empty heavy fabric sacks, such as potato sacks (figure 3-11).

- a. Cut holes in the two corners of the closed end of each sack.
- b. Place the sacks lengthwise so the open end of the sacks are facing each other.
- c. Slide the poles or limbs through the holes.
- d. Overlap the open ends of the sacks about three inches to provide extra strength in the middle of the litter.

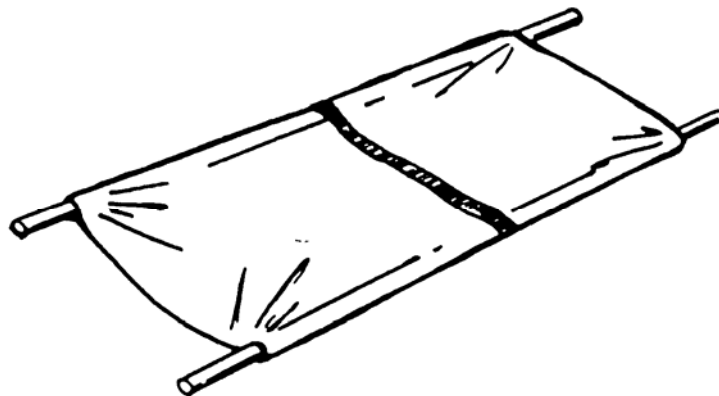


Figure 3-11. Improvised pole and sack litter.

3-12. IMPROVISED BLANKET LITTER

An improvised litter can be made using only a blanket, poncho, or similar material. The blanket is laid on the ground and two opposite edges of the blanket are rolled toward the middle (figure 3-12 A). When the casualty is placed on the blanket, the rolled edges are used as grips. Four or more litter bearers should be used when transporting a casualty using the blanket litter (figure 3-12 B).

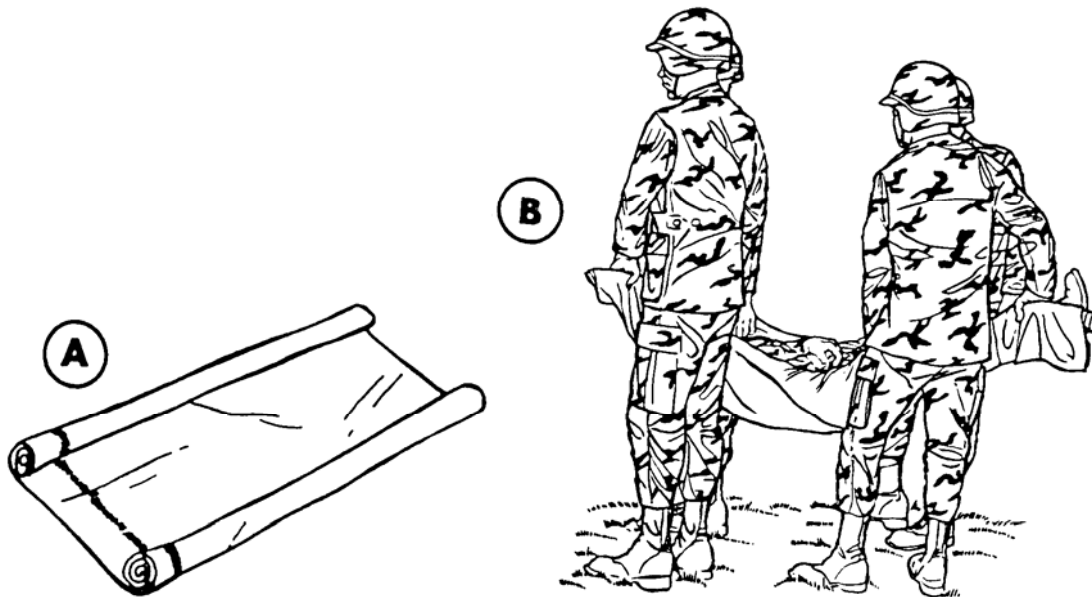


Figure 3-12. Improvised blanket litter.

3-13. IMPROVISED DOOR OR BOARD LITTER

A door, wide board, bench, ladder, or similar object may be used as a litter. If possible, pad the litter. Before placing the casualty on the litter, place an object under the head end of the litter. Elevating the end of the litter makes it easier for the bearers to grasp the end of the litter. After securing the casualty to the litter, lift the head end first to allow the bearers at the foot end to grasp their end of the litter. When lowering the litter to the ground, lower the foot-end first, then the head end. If the litter is to be lifted again, place an object under the head end.

3-14. IMPROVISED CHAIR LITTER

A casualty can be transported while seated in a chair. After securing the casualty to the chair, one bearer grips the chair legs as far up the legs as possible and lifts. A second bearer supports the back of the chair.

Section II. DRESSING A LITTER

3-15. PURPOSE OF THE DRESSING

When possible, a litter should be dressed with one or more blankets to provide warmth, reduce the danger of shock to the casualty, and provide additional padding. The number of blankets used will depend upon the weather, the condition of the casualty, and the number of blankets available. Blankets should always be smoothed, neat, and free of wrinkles. No part of the blanket should overhang the litter. In a nuclear, biological, or chemical (NBC) environment, use an impermeable cover (such as a rubber poncho) to dress the litter in addition to using blankets if a Chemical Patient Protective Wrap is not available. The impermeable cover provides additional protection against contaminants when placed over the casualty. The procedures for dressing the litter with one, two, or three blankets is given in the following paragraphs.

3-16. ONE-BLANKET DRESSING

The one-blanket dressing provides a padding of one blanket layer under the casualty and two layers over the casualty.

- a. Place the blanket diagonally across the litter (figure 3-13 A).
- b. Place the casualty on the blanket.
- c. Bring one side of the blanket over the casualty and tuck in excess material.
- d. Bring the other side over the casualty and tuck.
- e. Bring the excess blanket at the foot of the litter over his feet and tuck in the material (figure 3-13 B).

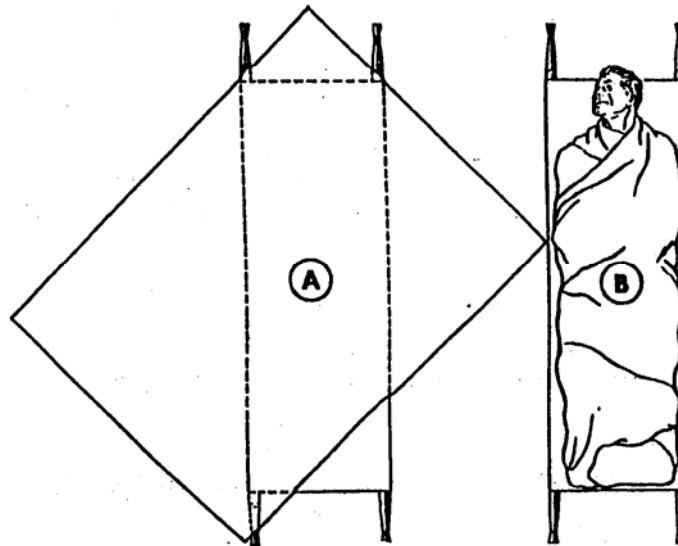


Figure 3-13. Litter dressed with one blanket.

3-17. TWO-BLANKET DRESSING

The two-blanket dressing provides a padding of four blanket layers under the casualty and two layers over the casualty.

- a. Place the first blanket centered lengthwise across the litter with the top edge of the blanket just beyond the head end of the bed of the litter (figure 3-14 A).
- b. Fold the second blanket into thirds lengthwise. Place it on top of the first blanket with the upper edge of the second blanket about 10 inches below the upper edge of the first blanket (figure 3-14 B). If the casualty is tall, place the second blanket lower on the litter.
- c. Open the folds at the bottom of the second blanket for about two feet (figure 3-14 B).
- d. Place the casualty onto the litter.
- e. Bring the bottom of the second blanket up over the casualty's feet and make a small fold between his feet to keep them separated; then tuck the two folds over and around his feet and ankles (figure 3-14 C).
- f. Bring one side of the first blanket over the casualty; then bring the other side of the first blanket over the casualty and tuck in excess (figure 3-14 D).

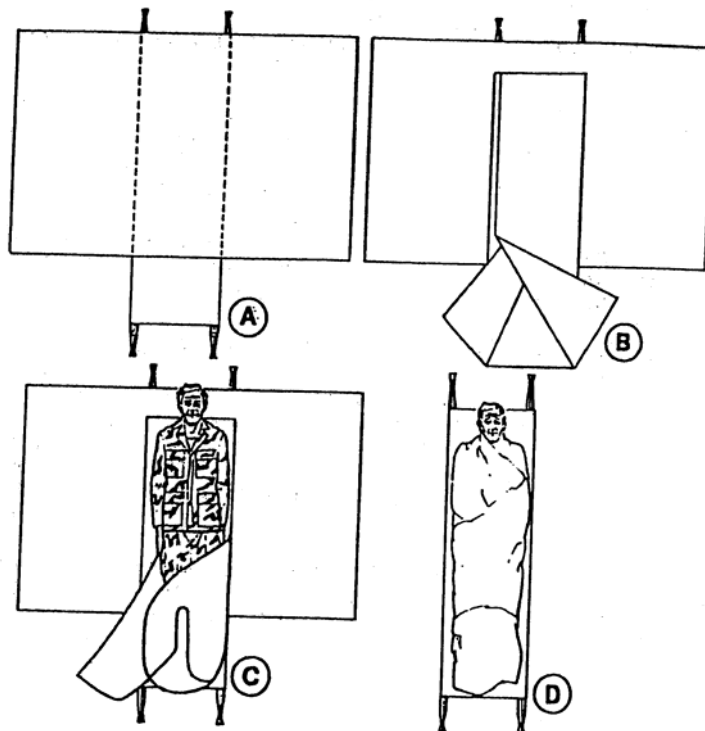


Figure 3-14. Litter dressed with two blankets.

3-18. THREE-BLANKET DRESSING

The three-blanket litter dressing provides four thickness of blanket underneath the casualty and four thickness on top of the casualty.

a. Place the first blanket on the litter lengthwise so one edge of the blanket is even with the litter pole that is away from you and the upper edge of the blanket is even with the top (head) edge of the litter bed.

b. Bring the blanket over the bed of the litter to the near pole; then fold the blanket at the near pole and take the remainder back over the litter. Let the excess blanket overhang the far pole (figure 3-15 A). Two thickness of blanket now cover the litter bed and one thickness is beyond the far pole.

c. Place the second blanket on the litter lengthwise so one edge of the blanket is even with the litter pole that is near you and the upper edge of the blanket is even with the top (head) edge of the litter bed.

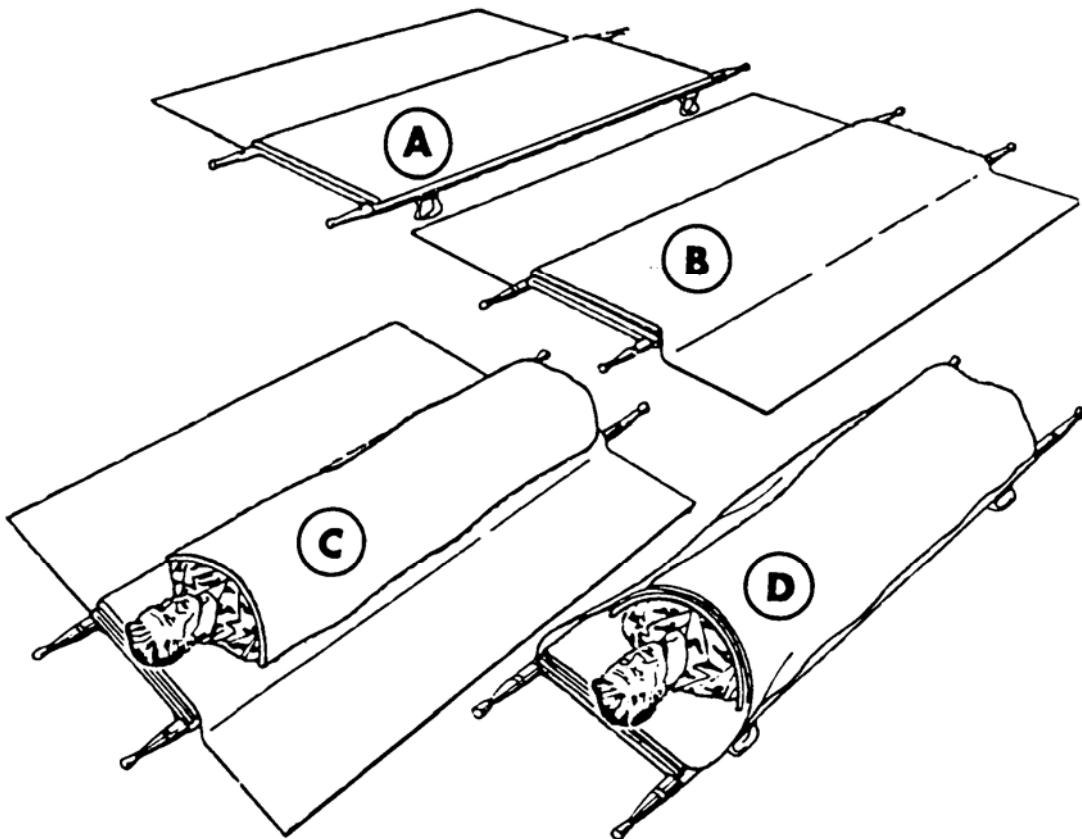


Figure 3-15. Litter dressed with three blankets.

d. Take the blanket over the bed of the litter to the far pole; then fold the blanket at the far pole and bring the remainder back over the litter. Let the excess material overhang the near pole (figure 3-15 B). Four thickness of blanket now cover the litter bed (two from the first blanket and two from the second blanket), one thickness is beyond the far pole (from the first blanket), and one thickness is beyond the near pole (from the second blanket).

e. Place the casualty on the litter.

f. Fold the third blanket once lengthwise and place it on the casualty (figure 3-15 C). The third blanket provides two layers of thickness over the casualty.

g. Fold the overhanging edges of the first and second blankets over the casualty (figure 3-15 D) and secure them in place with safety pins or litter straps. The casualty now has four thickness of blanket over him: two from the third blanket, one from the first blanket, and one from the second blanket.

Section III. PLACING A CASUALTY ON A LITTER

3-19. EVACUATING A CASUALTY BY LITTER

Always check the casualty for possible spinal injuries (fractured spine, back, or neck or severe head trauma) before placing the casualty onto a litter. If you suspect a spinal injury, secure the casualty to a spine board (paragraph 3-25) before transporting the casualty. The spine board can serve as a litter, or it can be placed on a litter. Use care when placing any casualty onto the litter to avoid causing additional injury to the casualty. If four bearers are available, use the method presented in paragraph 3-20 to place a casualty onto a litter. If only three bearers are available, use the method presented in paragraph 3-21. If only two bearers are available, use a modified two-man arms carry (paragraph 3-22), a modified two-man fore-and-aft carry (paragraph 3-23), or the two-hand seat carry (paragraph 2-21) to place the casualty onto the litter. Some general rules are given in the following paragraphs.

a. **Perform Necessary Care Before Transporting.** Make sure the casualty is breathing properly, open wounds have been dressed and bandaged, and fractures have been splinted before transporting the casualty (unless the casualty is being moved away from a life-threatening danger).

b. **Walk Around the Casualty.** Walk around the casualty rather than stepping over him. If you step over the casualty, he may flinch or tighten his muscles and aggravate his injuries. In addition, mud or other debris may fall from your boots into his eyes or wound.

c. **Explain the Procedure to the Casualty.** If the casualty is conscious, tell him what you are going to do. The explanation will help to calm his fears and obtain his cooperation.

d. **Have One Person in Charge.** One person must be in charge of the litter team so actions will be performed in unison. If a combat medic is a member of the litter squad, he will function as the leader. If a medic does not function as the leader, then a combat lifesaver or other soldier can function as the leader of the litter squad.

3-20. PLACING A CASUALTY ON A LITTER USING THE FOUR-MAN MODIFIED ARMS CARRY

If four bearers are available, the following method should be used to place a casualty on a litter. A casualty that has a suspected back injury must be evacuated without applying a spine board; therefore, a litter can be used.

a. Position the casualty on his back with his arms at his sides. If possible, have the casualty clasp his hands together over his abdomen or grasp his wrist with one hand. Place the litter nearby where it will be within reach of the leader.

b. One bearer (the leader) positions himself on one side of the casualty near the casualty's hips and the other three bearers position themselves on the other side of the casualty.

c. All bearers kneel on one knee and prepare to lift the casualty (figure 3-16).

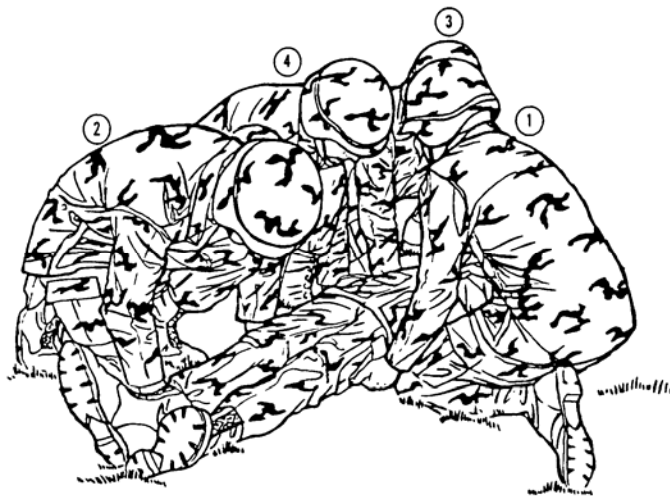


Figure 3-16. Four bearers preparing to lift a casualty.

(1) The bearer near the casualty's feet (bearer 2) slips his arms under the casualty's legs.

(2) The middle bearer (bearer 4) and the leader (bearer 1) pass their arms under the casualty's thighs and under the small of the back. They do not lock hands.

(3) The bearer near the casualty's head (bearer 3) passes one hand under the casualty's near shoulder and slips the other arm under the casualty's neck and moves his hand so it is under the casualty's far shoulder. The second arm under the neck cradles and immobilizes the casualty's head during the lift.

d. Upon command from the leader, the four bearers slowly lift the casualty in unison and place him on the raised thighs of the three bearers on the same side of the casualty (figure 3-17).

e. Once the casualty rests securely on the bearers thighs, the leader removes his arms from the casualty and moves the litter beneath the casualty.

f. The leader again moves to support the casualty's thighs and back.

g. Upon command from the leader, the bearers slowly lower the casualty to the litter in unison and remove their arms from under the casualty.

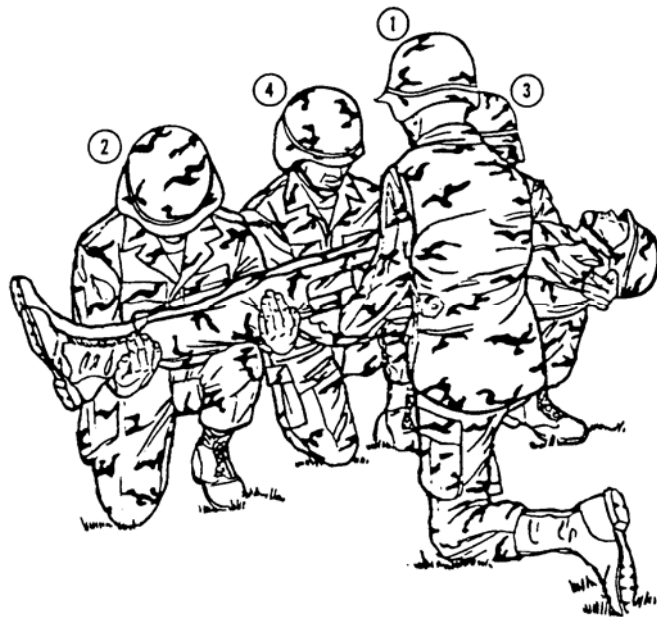


Figure 3-17. Four bearers supporting a casualty.

3-21. PLACING A CASUALTY ON A LITTER USING THE THREE-MAN MODIFIED ARMS CARRY

If only three bearers are available, the following method should be used to place a casualty on a litter.

a. Position the casualty on his back with his arms at his sides. If possible, have the casualty clasp his hands together over his abdomen or grasp his wrist with one hand. Place the litter nearby where it will be within reach of the leader.

b. One bearer (the leader) positions himself on one side of the casualty near the casualty's hips and the other two bearers position themselves on the other side of the casualty.

c. All bearers kneel on one knee and prepare to lift the casualty.

(1) The bearer near the casualty's feet (bearer 2) slips his arms under the casualty's legs and thighs.

(2) The bearer near the casualty's head (bearer 3) slips his arms under the small of the casualty's back and the casualty's shoulders.

(3) The leader (bearer 1) slips one arm under the casualty's knees and the other arm under the casualty's back.

d. Upon command from the leader, the bearers slowly lift the casualty in unison and place him on the raised thighs of the two bearers on the same side of the casualty.

e. Once the casualty rests securely on the thighs of bearers 2 and 3, the leader releases his support of the casualty and moves the litter beneath the casualty (figure 3-18).

f. The leader again moves to support the casualty's knees and back.

g. Upon command from the leader, the bearers slowly lower the casualty in unison to the litter and remove their arms from under the casualty.

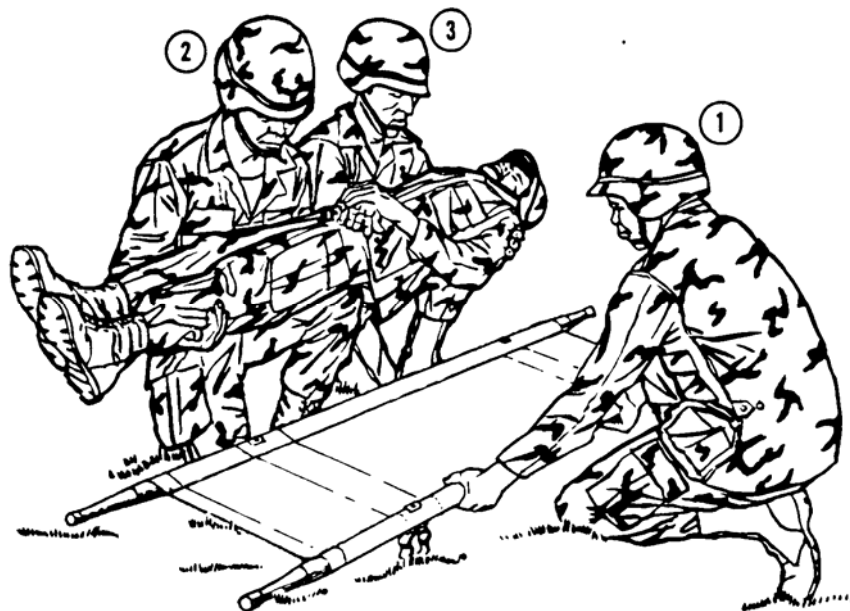


Figure 3-18. Two bearers supporting a casualty while the leader positions the litter.

3-22. PLACING A CASUALTY ON A LITTER USING THE MODIFIED TWO-MAN ARMS CARRY

- a. Position the casualty on his back with his arms at his sides. Place the litter (standard or improvised) near and parallel to the casualty (figure 3-19).

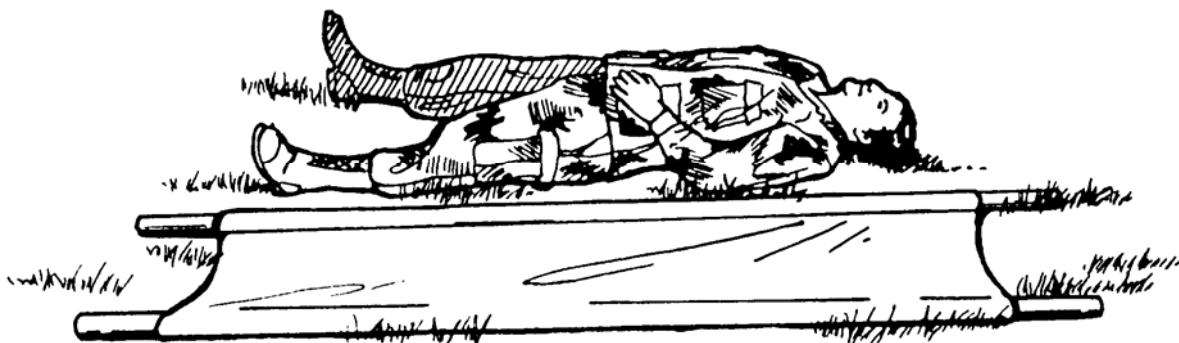


Figure 3-19. Litter placed parallel to a casualty.

b. Both bearers position themselves on the same side of the casualty (opposite side from litter) and kneel on one knee (figure 3-20 A).

c. The bearer nearest the casualty's head slips his arms under the casualty's back and waist.

d. The other bearer slips his hands under the casualty's hips and knees.

e. Upon command from the leader, both bearers lift the casualty to knee level in unison (figure 3-20 B).

f. The bearers move the casualty over the litter or have another soldier push the litter under the casualty.

g. Upon command from the leader, both bearers lower the casualty onto the litter in unison.

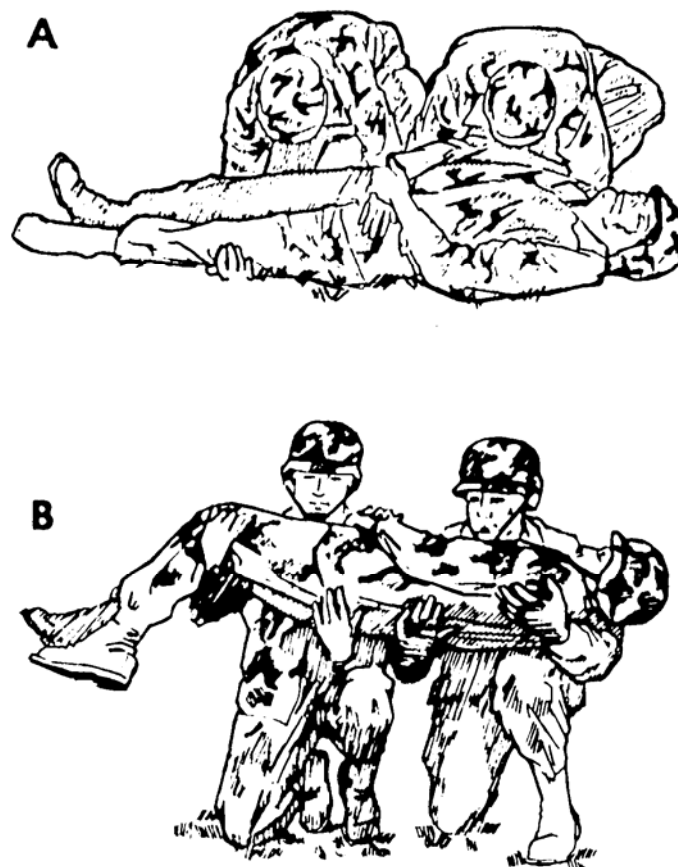


Figure 3-20. Lifting a casualty using the modified two-man arms carry.

3-23. PLACING A CASUALTY ON A LITTER USING THE MODIFIED FORWARD-AND-AFTER CARRY

- a. Position the casualty on his back with his arms at his sides. Place the litter (standard or improvised) near and parallel to the casualty.
- b. One bearer kneels behind the casualty's head, slips his arms under the casualty's arms and across the casualty's chest, and locks his hands together.
- c. The second bearer spreads the casualty's legs apart and squats or kneels between the casualty's legs and faces the first bearer.
- d. Upon command from the leader, both bearers rise in unison, lifting the casualty (figure 3-21).
- e. The bearers move the casualty over the litter.
- f. Upon command from the leader, the bearers lower the casualty onto the litter in unison.



Figure 3-21. Lifting a casualty using the modified two-man fore-and-aft carry.

3-24. PLACING A CASUALTY ON A SPINE BOARD USING LOG ROLL TECHNIQUE

A casualty should be checked for possible spinal injury before he is moved. When moving a casualty with a suspected spinal fracture, extra care must be taken to avoid causing additional injury that could result in paralysis or even death. Four or more soldiers should be used when moving the casualty. Whenever possible, a casualty with a suspected spinal injury should be placed on a spine board and secured to the board. The bearers can evacuate the casualty using the handholds on the long spine board or place the board on a litter.

a. Position the casualty on his back with his arms at his sides. Place a long spine board or an improvised spine board near and parallel to the casualty. If time allows, place padding on the spine board where the casualty's neck, small of the back, knees, and ankles will rest.

b. One bearer (usually the combat medic) kneels at the casualty's head facing the casualty, places his hands on each side of the casualty's head and jaw, and applies slight traction to manually immobilize the head and neck (figure 3-22).



Figure 3-22. Immobilizing the casualty's head and neck.

c. Three (or more) bearers kneel at the casualty's side (the side away from the spine board), reach across the casualty, and grasp the casualty's shoulder and waist, hip and thigh, and knee and ankle (figure 3-23).

d. The three bearers roll the casualty's body toward them slightly as the first bearer turns the casualty's head slightly to keep it in alignment with the spine.

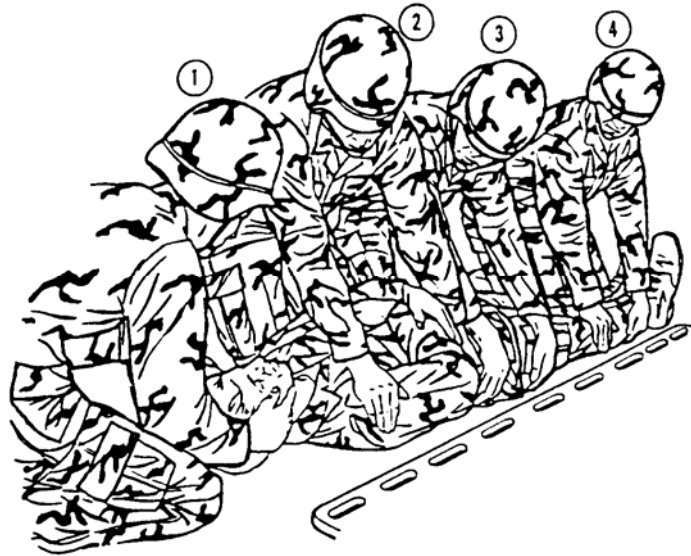


Figure 3-23. Placing a casualty on a long spine board.

e. The middle bearer releases his hold on the casualty's hip, grasps the near edge of the spine board, and slides it against the casualty. He then releases the board, reaches across the board, grasps the far edge, and holds the board in place so it will not slip as the casualty is placed on the board. (If another soldier is available, he can slip the spine board under the casualty without the bearer releasing his hold on the casualty.)

f. The bearers slowly lower the casualty's side, allowing the casualty's back to rest on the spine board. The first bearer turns the casualty's head to keep it in alignment with the spine.

g. The bearers secure the casualty's body to the spine board with patient securing straps and cravats (figure 3-24).

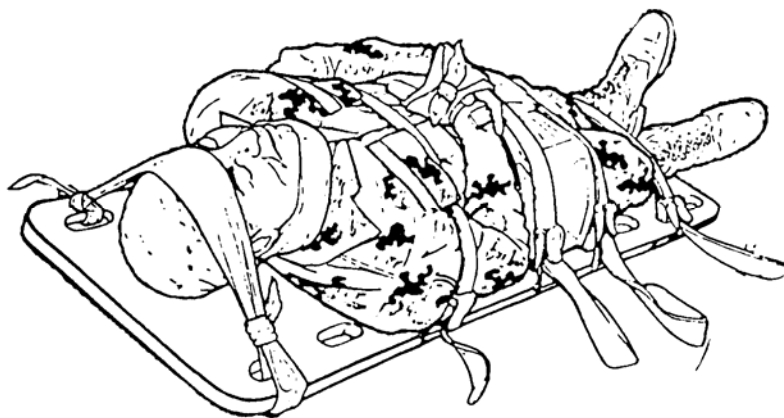


Figure 3-24. Casualty secured to a long spine board.

Section IV. LITTER CARRIES

3-25. THE LITTER SQUAD

A litter squad is normally composed of four bearers. The fatigue produced by long and frequent carries is increased when the weight of the loaded litter is shared by fewer than four men. The litter team, however, can be composed of more or fewer members based upon the military situation and the distance and terrain to be covered. This section gives instructions for performing some common carries using a four-man litter squad. In the illustrations, the bearers are numbered for ease of reference. The leader of the litter squad is bearer one.

3-26. OPENING A STANDARD COLLAPSIBLE LITTER

If a standard collapsible litter is closed (collapsed) and secured with two litter securing straps, the following steps can be used to prepare the litter for use.

- a. Two bearers position themselves at the ends of the litter and lift the closed litter.
- b. The other two bearers position themselves on opposite sides of the litter near the middle, undo the litter securing straps (figure 2-25), and step back. They are not needed to complete the opening of the litter.

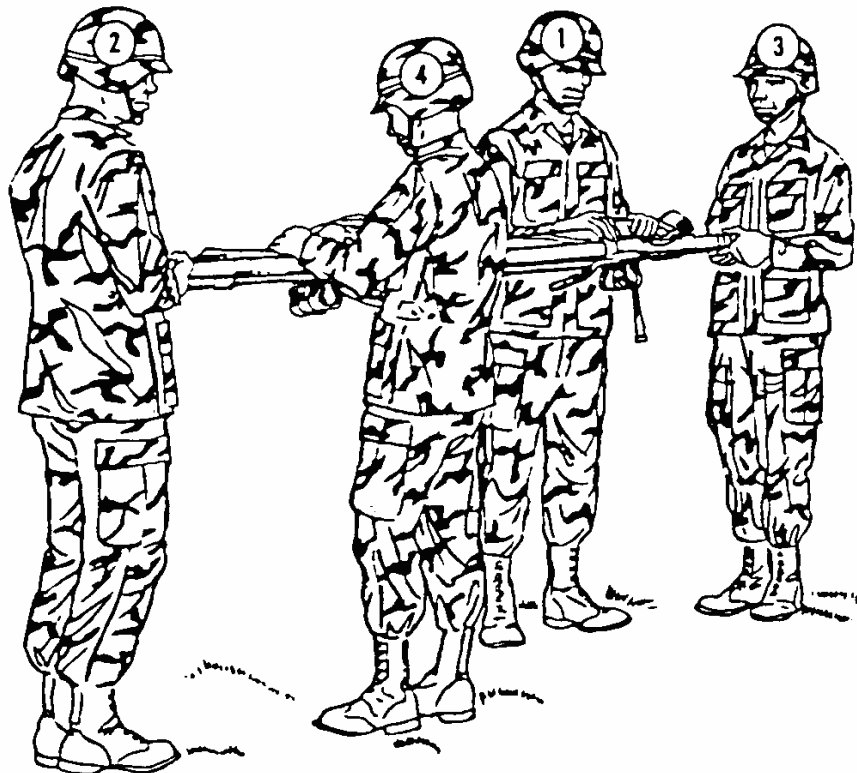


Figure 3-25. Undoing the litter securing straps.

- c. The two bearers at the ends grasp the litter-handles and pull the poles apart.
- d. One of the bearers holding the litter lowers his end of the litter to the ground and releases it.
- e. The other bearer raises his end until the litter is standing vertically and keeps the litter in this position. The bottom of the litter (the side with the spreader bars and stirrups) must face the bearer who released his end of the litter.
- f. The bearer who released his end locks the bottom spreader bar into the extended position by pushing on it with his foot as shown in figure 3-26.

CAUTION: Use a foot, not hands, to push the spreader bar into a locked position. Using hands could result in accidental injury to the bearer's hand.

- g. The bearers then rotate the litter until it is again vertical with the unlocked spreader bar at the bottom.
- h. The bearer locks the bottom spreader bar into the extended position by pushing on it with his foot (figure 3-26).
- i. The bearers lower the litter to the ground so the litter rests on its stirrups.
- j. The bearers dress the litter (if appropriate), place the casualty onto the litter, and secure the casualty to the litter with patient securing straps.
 - (1) If only two straps are needed, put one strap across the casualty's chest and the other across his legs just below the knees (figure 3-27 A). Extend them under the litter and buckle them against the litter pole.
 - (2) If the terrain is rough, use two additional litter straps. Place one across the casualty's waist and the other across his thighs (figure 3-27 B).
 - (3) If the casualty must be moved up or down steep slopes, use the third and fourth straps to secure the casualty's thighs individually (figure 3-27 C). Take the third strap over one thigh, under the other thigh, under the litter, and buckle against the litter pole. Apply the fourth strap in the same manner to secure the other thigh.

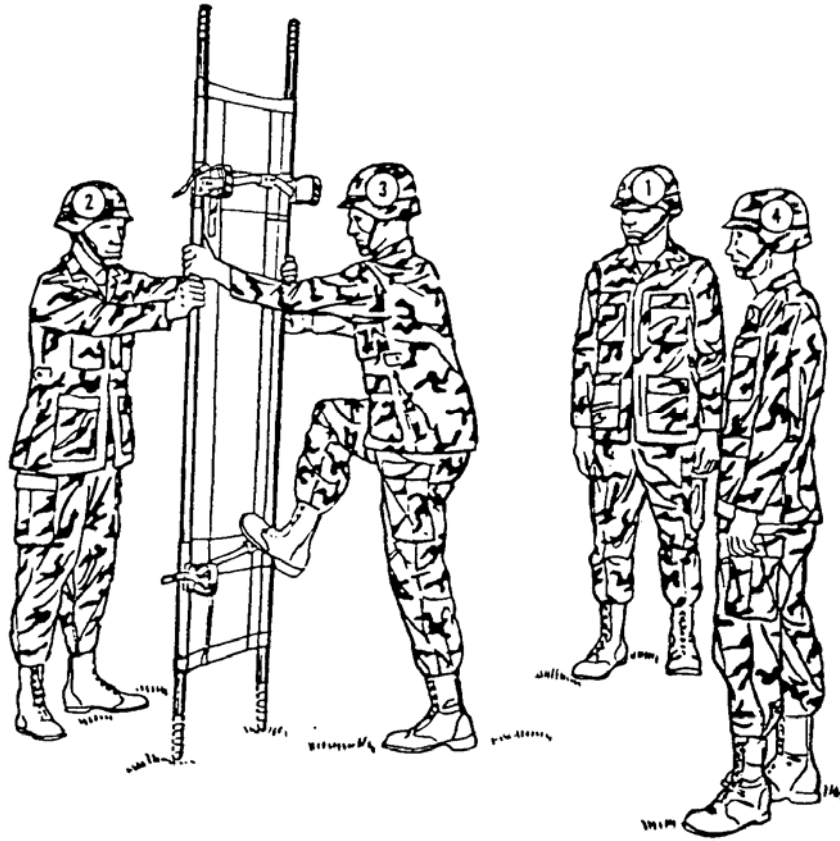


Figure 3-26. Locking the spreader bar into position.

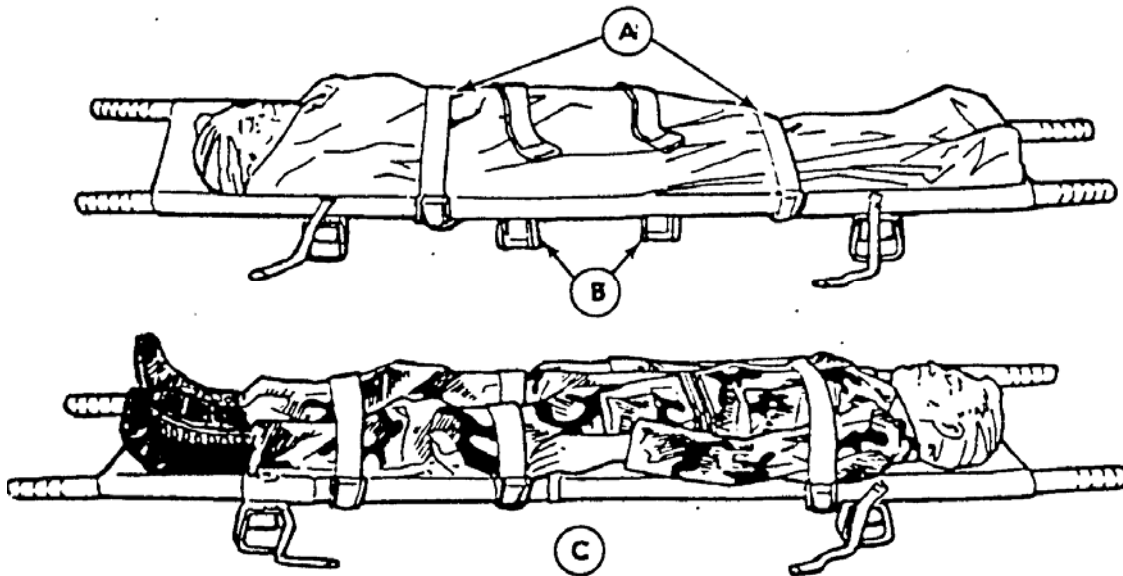


Figure 3-27. Securing a casualty with litter straps.

3-27. COMMANDS

The litter team must work as a single unit. They must lift, move, and lower the litter in unison. Teamwork makes the task easier for the bearers and the movement more comfortable for the casualty. It is the duty of the leader to make sure the squad works as a unit. The use of preparatory commands and commands of execution are helpful when training litter squads. These commands may or may not be needed in combat situations.

a. **Preparatory Command.** A preparatory command tells the litter squad the movement or formation to be carried out and instructs the squad members to prepare for its execution.

b. **Command of Execution.** A command of execution tells the squad to actually carry out the movement or formation. In this section, preparatory commands are in lower case with initial capital letters and commands of execution are in all capital letters.

3-28. RULES FOR TRANSPORTING A CASUALTY BY LITTER

The following are general rules for transporting a casualty using a standard or improvised litter.

a. Carry the litter with the casualty's feet toward the direction of travel when the ground is level or when going downhill.

b. Carry the litter with the casualty's head toward the direction of travel when going uphill.

c. If the casualty has a fracture of a lower extremity and does not have a head injury, the rules given in paragraphs a and b are reversed. The casualty is carried head first, when going downhill and feet first when going uphill. This prevents the weight of the body from pressing on the fracture.

d. If the casualty has a fractured leg and a head injury, rules a and b are followed to keep the head elevated when going uphill or downhill.

e. Secure the casualty to the litter. Improvise securing devices if patient securing straps are not available.

f. The rear bearers must watch the front bearers and coordinate their movements with the front bearers to keep the litter steady and even. The command "STEADY" can be used to prevent undue haste and uneven movements.

3-29. FOUR-MAN CARRY

The four-man carry (figure 3-28) is the carry normally used to transport a litter casualty when the terrain is generally smooth and level.

a. The bearers position themselves as described below prior to performing the carry.

(1) The leader of the litter squad (bearer one) positions himself at the litter handle nearest the casualty's right shoulder, normally at the back of the litter. This position allows him to observe the casualty and to direct the three other members of the squad. In figure 3-28, bearer one is the leader of the litter squad.

(2) The other three-squad members position themselves at the remaining litter handles.

(3) All bearers face the direction of travel and kneel on one knee (the knee near the litter).

b. On the preparatory command "Prepare to Lift," each bearer grasps his litter handle with the hand closest to the litter and places his other hand on his raised knee.

c. On the command of execution "LIFT," all bearers rise together, lifting the litter and keeping it level.

(1) Each bearer uses the hand on his knee to help support and balance himself as he rises.

(2) Leg muscles, not back muscles, are used when lifting a litter. This helps to prevent back injury.

d. After the bearers are standing, they are in position for the four-man carry. The command to proceed is "Four-Man Carry, MOVE." This command is also used to change to the four-man carry from another carry without lowering the litter.

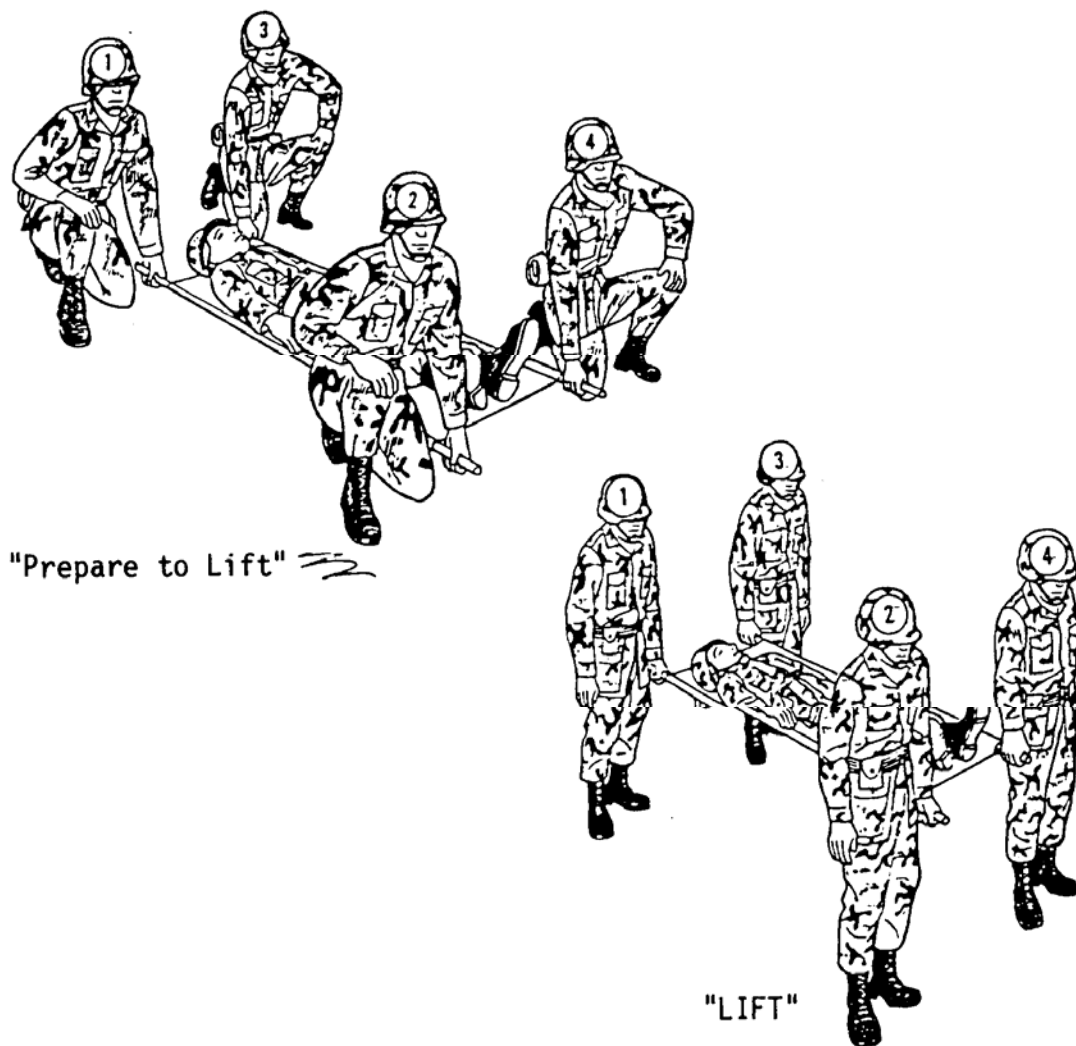


Figure 3-28. Lifting a litter for the four-man carry.

3-30. TWO-MAN CARRY

The two-man carry (figure 3-29) is used to move the litter through narrow passages and over narrow trails, bridges, gangplanks, or catwalks.

a. Upon the command "Two-Man Carry," the bearers position themselves to perform the carry. The following instructions assume the bearers begin in a regular four-man carry formation.

(1) The bearer at the casualty's left shoulder (bearer three) switches his litter handle from his right hand to his left hand, steps between the litter handles, and grasps the litter handle held by bearer one.

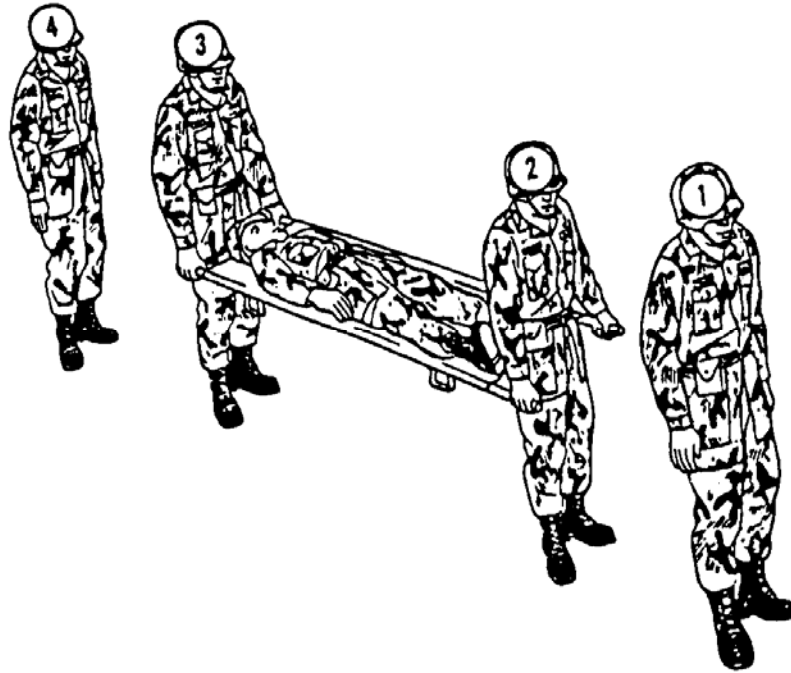


Figure 3-29. Two-man carry.

(2) The bearer at the casualty's right foot (bearer two) switches his litter handle from his left hand to his right hand, steps between the litter handles, and grasps the litter handle held by bearer four.

(3) The bearer at the casualty's right shoulder (bearer one) release his handle and moves to a position in front of the litter.

(4) The bearer at the casualty's left foot (bearer four) release his handle and moves to a position following the litter.

b. Upon the command "MOVE," the bearers walk forward.

c. If a bearer carrying the litter becomes tired, he can switch with a bearer not carrying the litter.

d. After moving through the narrow passage, the command "Four-Man Carry, MOVE" is given to resume the original carry. Upon the preparatory command, the position changes given in paragraph a above are reversed. Upon the command of execution, the bearers move forward.

3-31. TWO-MAN CARRY MODIFIED FOR A TUNNEL

The two-man carry can be modified to move the litter through a tunnel or culvert. In the modified carry, the bearer carrying the front of the litter turns and faces the casualty. This bearer moves backward while moving the litter. All bearers crawl on their knees through the tunnel or culvert.

3-32. LITTER POST CARRY

The litter post carry is used to move the litter over rough, uneven terrain and for low barbed wire.

a. Upon the command "Litter Post Carry," the bearers position themselves to perform the carry (figure 3-30). The following instructions assume the bearers begin in a regular four-man carry formation.

(1) Bearer at the casualty's left shoulder (bearer three) switches his litter-handle from his right hand to his left hand, steps between the litter-handles, and grasps the litter handle held by bearer one.

(2) The bearer at the casualty's right foot (bearer two) switches his litter-handle from his left hand to his right hand, steps between the litter-handles, and grasps the litter handle held by bearer four.

(3) The bearer at the casualty's right shoulder (bearer one) releases his handle, moves to a position at the casualty's right hip, and grasps the near litter pole.

(4) The bearer at the casualty's left foot (bearer four) releases his handle, moves to a position at the casualty's left hip, and grasps the near litter pole.

b. When given the command "MOVE," the bearers move forward slowly with the bearers at the sides keeping the litter steady and level.

c. After moving across the rough terrain, the command "Four-Man Carry, MOVE" is given to resume the original carry. Upon the preparatory command, the position changes given in paragraph a above are reversed. The bearers then move forward carrying the litter on the command of execution.



Figure 3-30. Litter post carry.

3-33. LITTER ROTATION

When you must change the casualty's direction of travel (from feet first to head first or from head first to feet first), rotate the litter. The instructions below assume the rotation takes place while the bearers are in a four-man carry formation.

- a. Upon the command "Litter Post Carry, MOVE," the bearers position themselves as though they were going to perform the litter post carry (figure 3-30). The bearer at the front of the litter (bearer two turns his head and looks over his shoulder so he can observe the other bearers.
- b. Upon the command "Prepare to Rotate," the two bearers at the ends (bearers two and three) release the handles and take one step away from the litter, leaving the bearers at the sides (bearers one and four) supporting the full weight of the litter (figure 3-31).
- c. Upon the command "ROTATE," bearers one and four move so as to rotate the litter 180 degrees counterclockwise. The bearers do not change their hold on the litter during the rotation.
- d. Once the rotation is completed, the bearers at the front and rear (bearers two and three) take a step toward the litter and grasp the litter handles again (figure 3-32).
- e. After the rotation has been completed, the command to have the litter squad perform the desired carry (uphill carry, downhill carry, two-man carry, or four-man carry) is given.



Figure 3-31. Litter rotation: Preparing to rotate. Figure 3-32. Litter rotation: Rotation completed.

3-34. UPHILL/UPSTAIRS CARRY

The uphill or upstairs carry (figure 3-33) is used to carry a litter up a hill or up a flight of stairs.

a. Rotate the litter ("Litter Post Carry, MOVE; Prepare to Rotate, ROTATE") so the casualty's head (or feet, if appropriate) is in the direction of travel.

b. Upon the command "Uphill Carry" (or "Upstairs Carry"), the bearers position themselves to perform the carry.

(1) Bearer two looks forward and retains his grip on the two forward litter handles.

(2) Bearer four releases his hold on the litter pole, moves to the rear of the litter, and grasps the right litter handle.

(3) Bearer three releases that handle and moves to the side, retains his grasp on the other litter handle.

(4) Bearer one (the squad leader) releases his hold on the side of the litter and moves in front of the other bearers.

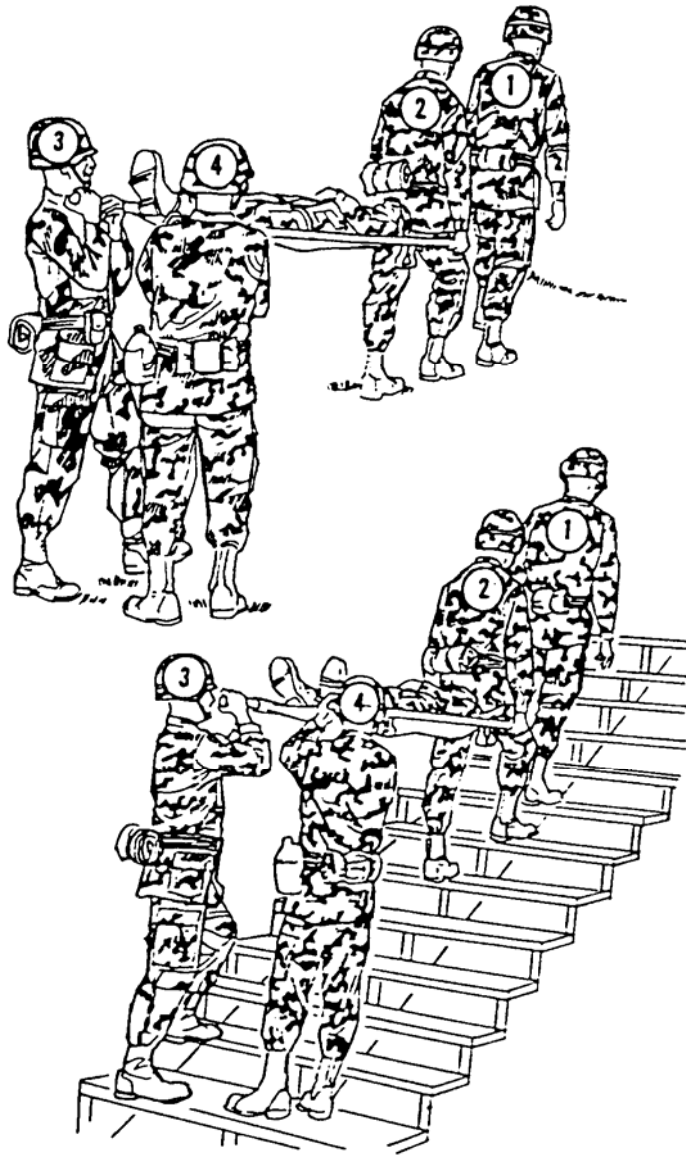


Figure 3-33. Uphill and upstairs carries.

c. Upon the command "MOVE," the two bearers at the rear raise their end of the litter to keep the litter level and walk forward.

d. Upon reaching the top of the hill, the bearers return to an appropriate carry, usually the four-man carry ("Litter Post Carry, MOVE; Prepare to Rotate, ROTATE; Four-Man Carry, MOVE").

3-35. DOWNHILL/DOWNSTAIRS CARRY

The downhill or downstairs carry (figure 3-34) is used to carry a litter down a hill or down a flight of stairs.

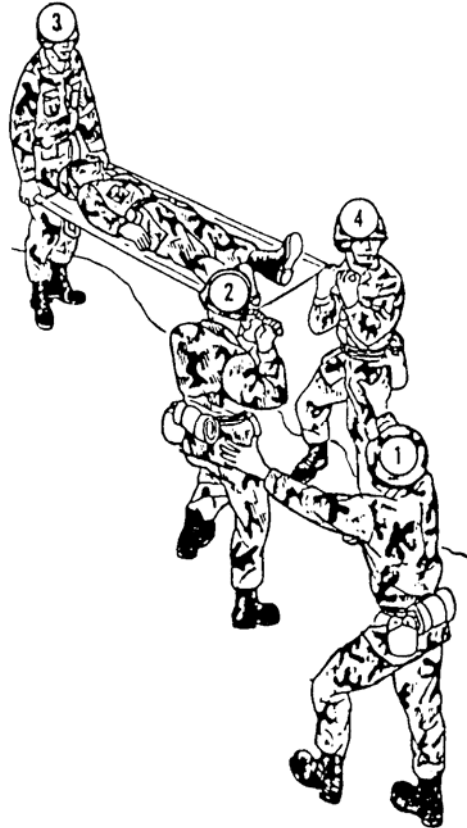


Figure 3-34. Downhill carry.

a. Upon the command "Downhill Carry" (or "Downstairs Carry"), the bearers position themselves to perform the carry.

(1) From a four-man carry. The following instructions assume the litter squad is in a normal four-man carry and no rotation is needed.

(a) The bearer at the casualty's left shoulder (bearer three) switches his litter handle from his right hand to his left hand, steps between the litter handles, and grasps the litter handle held by bearer one.

(b) Bearer one releases his handle, moves to the front, and faces the litter.

(c) The bearers supporting the front of the litter (bearers two and four) remain in their positions at the casualty's feet.

(2) From a rotation. The following instructions assume a litter rotation has been performed (the casualty's direction of travel is being changed from head first going uphill to feet first going downhill, for example). The instructions assume the bearers are in the positions shown in figure 3-34.

(a) Bearer four releases the side of the litter, moves to the front of the litter, and grasps the litter handle at the casualty's right foot (his normal position for a four-man carry).

(b) The bearer at the front of the litter (bearer two) releases the litter handle to bearer 4; he switches the other handle to his right hand, and moves to his normal four-man carry position.

(c) Bearer one releases his hold on the side of the litter, moves in front of the other bearers, and turns to face the bearers.

(d) The bearer supporting the rear of the litter (bearer three) remains in the same position.

b. Upon the command "MOVE," the bearers move downhill. The two bearers at the front raise their end of the litter to keep the litter level and steady. The squad leader (bearer one) supports the bearers two and four as needed.

c. After completing the descent, the bearers change to an appropriate carry, usually the four-man carry.

3-36. OVERHEAD CARRY

The overhead carry is used to move through deep trenches and ford streams. The following assumes the litter squad is in a four-man carry.

a. Upon the command "Overhead Carry," the two bearers at the front of the litter (bearers two and four) turn to face each other and determine which is the taller. At the same time, the two bearers at the rear of the litter (bearers one and three) turn to face each other (figure 3-35) and determine which is the taller.

b. On the command "MOVE," the bearers switch to the overhead carry (figure 3-36).

(1) The bearers raise the litter over their heads, taking care to keep the litter level.

(2) The taller of the two bearers at the front moves between the two litter poles, faces the direction of travel, grasps both litter handles as close to the cloth bed as possible, and supports the front of the litter.

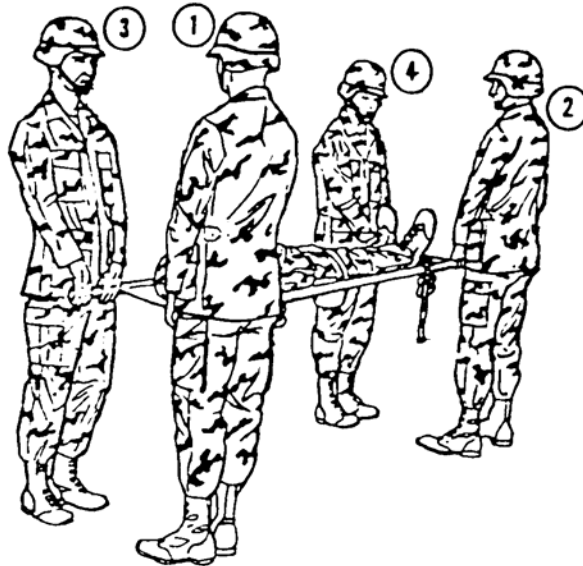


Figure 3-35. Bearers facing each other prior to overhead carry.

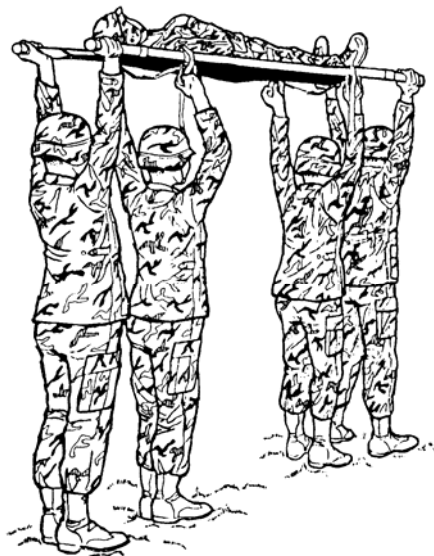


Figure 3-36. Overhead carry.

(3) The taller of the two bearers at the rear moves between the two litter poles, faces the direction of travel, grasps both litter handles as close to the cloth bed as possible, and supports the rear of the litter.

(4) The shorter of the two bearers at the front moves under the litter behind the taller bearer, faces the direction of travel, and helps support the litter by grasping the stirrups or the litter poles. The stirrups are used to compensate for a difference in height.

(5) The shorter of the two bearers at the rear moves under the litter in front of the taller bearer, faces the direction of travel, and helps support the litter by grasping the stirrups or the litter poles, whichever provides the better handhold.

c. When all four bearers are in position, they move forward, carrying the litter overhead. Should one of the bearers slip or fall (while crossing a stream, for example), the three remaining bearers can keep the litter in position.

d. After completing the crossing or moving through the trench, the bearers change to an appropriate carry, usually the four-man carry.

3-37. LOW CRAWL

The low crawl is used to maintain a low silhouette, such as moving under enemy fire or under low wire entanglements. The litter team moves to this carry from the four-man litter carry formation.

a. On the preparatory command, "Low Crawl," the litter bearers lower the litter to the ground.

b. On the command, "MOVE," the bearers lie on their sides so their heads are in the direction of travel and they are facing each other.

c. On the command, "Ready," the bearers prepare to lift the litter.

d. On the command, "LIFT," the bearers raise the litter off the ground (4 to 6 inches), move it forward (6 to 8 inches), and gently replace it on the ground. The bearers then crawl forward and position themselves for the next "Ready" command.

e. These procedures are repeated until the obstacle is cleared.

f. To recover, the command is, "Four-Man Carry, MOVE."

3-38. LOWERING THE LITTER

The command to lower the litter from the four-man carry formation is "Lower, LITTER." On the command of execution, each bearer slowly kneels on the knee closest to the litter while placing his free hand on his other knee for balance and support. (The outside knee remains in an upright position.) When the litter is completely lowered and resting on the stirrups, the bearers are in the same positions as shown in the "Prepare to Lift" portion of figure 3-28. Once the litter is lowered, the bearers release the handles and stand up.

[Continue with Exercises](#)

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EXERCISES, LESSON 3

INSTRUCTIONS: Answer the following exercises by marking the lettered response that best answers the question or best completes the incomplete statement or by writing the answer in the space provided at the end of the exercise.

After you have completed all the exercises, turn to "Solutions to Exercises" at the end of the lesson and check your answers. For each exercise answered incorrectly, reread the material referenced with the solution.

1. You and three other litter bearers are going to evacuate a casualty using the normal four-man carry. You are going to direct the other bearers. Where should you position yourself?

2. A soldier says, "All improvised litters require two rigid objects, such as tent poles or tree limbs." Is he correct?
 - a. Yes.
 - b. No.
3. You are constructing a pole and sack improvised litter. You have cut the corners of the closed ends of the sacks. How should the sacks be positioned on the pole?
 - a. Both open ends should be toward the casualty's head.
 - b. The closed ends of the sacks should be together.
 - c. The open ends of the sacks should be together.
 - d. Both closed ends should be toward the casualty's head.
4. Patient securing straps are used to secure a casualty to:
 - a. A standard litter.
 - b. An improvised litter.
 - c. Either a standard or improvised litter.

5. Which standard litter is easiest for the combat medic to fold, roll, and carry with him?

6. When using a door as a litter, place something under the ____ of the litter to make lifting the litter easier.

a. Head.

b. Foot.

7. When you use three blankets to dress a litter, there should be _____ layers between the litter and the casualty and _____ layers over his body.

8. A litter casualty does not have a fracture of the lower extremity. When carrying the casualty uphill, the casualty should be moved:

a. Feet first.

b. Head first.

9. A litter casualty has a fractured leg but no head injury. When carrying the casualty uphill, the casualty should be moved:

a. Feet first.

b. Head first.

10. A litter casualty has a fractured leg and a head injury. When carrying the casualty uphill, the casualty should be moved:

a. Feet first.

b. Head first.

11. You must use a manual carry to place a casualty with a suspected back injury onto a litter. Which of the following is preferred?
- a. Four-man modified arms carry.
 - b. Three-man modified arms carry.
 - c. Modified two-man arms carry.
 - d. Modified fore-and-aft carry.
12. The preferred method for locking the litter spreader bar of a standard litter into place is to push it with your:
- a. Foot.
 - b. Hand.
 - c. Shoulder.
13. When a casualty with a suspected spinal injury is placed on a long spine board, padding _____ be placed under his neck and the small of his back.
- a. Should.
 - b. Should not.
14. Describe the procedure for making a litter using poles and a poncho.

15. Which litter carry is usually preferred when moving a casualty over rough, uneven terrain?

16. Which litter carry is usually preferred when fording a stream?

17. A litter squad has been carrying a litter casualty using the uphill carry. The squad now needs to use the downhill carry. Which of the following statements is true?

- a. The litter should be lowered to the ground before being rotated.
- b. The litter should be rotated without lowering it to the ground.
- c. The litter should not be rotated.

Check Your Answers on Next Page

SOLUTIONS TO EXERCISES, LESSON 3

1. At the casualty's right shoulder. (para 3-29a(1))
2. b (para 3-12)
3. c (para 3-11b)
4. c (para 3-1)
5. Poleless, nonrigid litter. (para 3-6)
6. a (para 3-13)
7. 4; 4 (para 3-18)
8. b (para 3-28b)
9. a (para 3-28c)
10. b (paras 3-28d, b)
11. a (para 3-20)
12. a (paras 3-26f, h)
13. a (para 3-24a)
14. Open the poncho and lay it flat on the ground.
Lay two poles across the poncho so the poncho is divided into thirds.
Position the hood and drawstrings so they will not catch on obstacles.
Fold one outer third of the blanket over its pole.
Fold the other outer third of the blanket over its pole. (para 3-9)
15. Litter post carry. (para 3-32)
16. Overhead carry. (para 3-36)
17. b (para 3-33)

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