3

Lifting and Moving Patients
Figure 3-1  Moving a stair chair down steps.
Figure 3-2a  (A) The power lift and (B) the power grip
Figure 3-2b  (A) The power lift and (B) the power grip
Scan 3-1  Emergency Moves, One-Rescuer Drags  CLOTHES DRAG.
Scan 3-1 (continued)  Emergency Moves, One-Rescuer Drags  INCLINE DRAG  Always head first.
SHOULDER DRAG
Scan 3-1 (continued)  Emergency Moves, One-Rescuer Drags  FOOT DRAG  Do not bump the patient’s head.
Scan 3-1 (continued) Emergency Moves, One-Rescuer Drags  FIREFIGHTER’S DRAG  Place patient on his back and tie his hands together. Straddle him, crouch, and pass your head through his trussed arms. Raise your body, and crawl on your hands and knees. Keep the patient’s head as low as possible.
Scan 3-1 (continued)  Emergency Moves, One-Rescuer Drags  BLANKET DRAG  Gather half of the blanket material up against the patient’s side. Roll him toward your knees, place the blanket under him, and gently roll him onto the blanket. During the drag, keep the patient’s head as low as possible.
Scan 3-2  Emergency Moves, One Rescuer  ONE-RESCUER ASSIST  Place the patient’s arm around your neck, grasping her hand in yours. Place your other arm around the patient’s waist. Help the patient walk to safety. Be prepared to change your movement technique if the level of danger increases. Be sure to communicate with the patient about obstacles, uneven terrain, and so on.
Scan 3-2 (continued)  Emergency Moves, One Rescuer  CRADLE CARRY  Place one arm across the patient’s back with your hand under her arm. Place your other arm under her knees and lift. If the patient is conscious, have her place her near arm over your shoulder.
NOTE: *This carry places a lot of weight on the carrier’s back. It is usually appropriate only for very light patients.*
Scan 3-2 (continued)  Emergency Moves, One Rescuer  PACK STRAP CARRY  Have the patient stand. Turn your back to her, bringing her arms over your shoulders to cross your chest. Keep her arms as straight as possible, with her armpits over your shoulders. Hold the patient’s wrists, bend, and pull her onto your back.
Scan 3-2 (continued)  Emergency Moves, One Rescuer  FIREFIGHTER’S CARRY  Place your feet against the patient’s feet and pull her toward you. Bend at your waist and flex your knees. Duck and pull her across your shoulder, keeping hold of one of her wrists. Use your free arm to reach between her legs and grasp her thigh. This way, the weight of the patient falls onto your shoulders. Stand up. Transfer your grip on her thigh to the patient’s wrist.
Scan 3-2 (continued)  Emergency Moves, One Rescuer  FIREFIGHTER’S CARRY  Place your feet against the patient’s feet and pull her toward you. Bend at your waist and flex your knees. Duck and pull her across your shoulder, keeping hold of one of her wrists. Use your free arm to reach between her legs and grasp her thigh. This way, the weight of the patient falls onto your shoulders. Stand up. Transfer your grip on her thigh to the patient’s wrist.
Scan 3-2 (continued)  Emergency Moves, One Rescuer  PIGGYBACK CARRY  Assist the patient to stand. Place her arms over your shoulder so they cross your chest. Bend over and lift the patient. While she holds on with her arms, crouch and grasp each leg. Use a lifting motion to move her onto your back. Pass your forearms under her knees and grasp her wrists.
Scan 3-2 (continued)  Emergency Moves, One Rescuer  PIGGYBACK CARRY  Assist the patient to stand. Place her arms over your shoulder so they cross your chest. Bend over and lift the patient. While she holds on with her arms, crouch and grasp each leg. Use a lifting motion to move her onto your back. Pass your forearms under her knees and grasp her wrists.
Scan 3-3  Emergency Moves, Two Rescuers  TWO-RESCUER ASSIST  Place the patient’s arms around the shoulders of both rescuers. They each grip a hand, place their free arms around the patient’s waist, and then help him walk to safety.
Scan 3-3 (continued)  Emergency Moves, Two Rescuers  FIREFIGHTER’S CARRY WITH ASSIST  Have someone lift the patient. The second rescuer helps to position the patient.
Figure 3-3  When doing a log roll, keep your back straight, lean from the hips, and use your shoulder muscles.
Figure 3-4  A wheeled stretcher is carried on every ambulance.
Scan 3-4 (continued)  Patient-Carrying Devices  Scoop (orthopedic) stretcher. © Ferno Corporation
Scan 3-4 (continued)  Patient-Carrying Devices  Flexible stretcher
Scan 3-4 (continued)  Patient-Carrying Devices  Portable stretcher.
Scan 3-4 (continued)  Patient-Carrying Devices  Basket stretcher. © Ferno Corporation
Scan 3-4 (continued)  Patient-Carrying Devices  Stair chair. *(Stryker)*
Figure 3-5a  (A) Many EMS services are now equipped with specially constructed stretchers and loading equipment for obese patients. (B) An increasing number of emergency departments are being equipped with hydraulic lifts to transfer obese patients onto the hospital cot.
**Figure 3-5b** (A) Many EMS services are now equipped with specially constructed stretchers and loading equipment for obese patients. (B) An increasing number of emergency departments are being equipped with hydraulic lifts to transfer obese patients onto the hospital cot. *Photo B © Edward T. Dickinson, MD*
Scan 3-5  Loading the Wheeled Stretcher into the Ambulance  SELF-LOADING STRETCHER  (1) Position the wheels closest to the patient’s head securely on the inside floor of the ambulance.
Scan 3-5 (continued)  Loading the Wheeled Stretcher into the Ambulance  SELF-LOADING STRETCHER

(2) Once the wheels are securely on the ambulance floor, the rescuer at the rear of the stretcher activates the lever to release the wheels. (This may require a slight lift to get weight off the wheels.) The second rescuer should guide the collapsing carriage, if necessary.
Scan 3-5 (continued)  Loading the Wheeled Stretcher into the Ambulance  SELF-LOADING STRETCHER

(3) Move the stretcher into the securing device and secure the stretcher in the front and rear.
Scan 3-5 (continued)  Loading the Wheeled Stretcher into the Ambulance  POWER STRETCHER  (1) Remove the power stretcher from the ambulance. Equipment that will be needed is loaded atop the stretcher.
Scan 3-5 (continued)   Loading the Wheeled Stretcher into the Ambulance

POWER STRETCHER (2) Once the head of the stretcher is supported inside the ambulance, raise the stretcher legs.
Scan 3-5 (continued)  Loading the Wheeled Stretcher into the Ambulance  POWER STRETCHER  (3) Check that the stretcher is properly supported as the patient is loaded into the ambulance.
Scan 3-5 (continued)  Loading the Wheeled Stretcher into the Ambulance

POWER STRETCHER

(4) Make sure the locking mechanism is secured.
Figure 3-6a  (A) A modern stair chair has wheels to roll the patient along a floor or level ground. (B) It also has a track that can be lowered that (C and D) allows EMTs to gently slide the patient down a staircase.
Figure 3-6b  (A) A modern stair chair has wheels to roll the patient along a floor or level ground. (B) It also has a track that can be lowered that (C and D) allows EMTs to gently slide the patient down a staircase
Figure 3-6c  (A) A modern stair chair has wheels to roll the patient along a floor or level ground. (B) It also has a track that can be lowered that (C and D) allows EMTs to gently slide the patient down a staircase.
Figure 3-6d  (A) A modern stair chair has wheels to roll the patient along a floor or level ground. (B) It also has a track that can be lowered that (C and D) allows EMTs to gently slide the patient down a staircase.
Figure 3-7a  (A) A vacuum mattress may be used to transport a patient. (B) When the patient is placed on the device and air is withdrawn, the mattress becomes rigid and conforming, automatically padding voids.
Figure 3-7b  (A) A vacuum mattress may be used to transport a patient. (B) When the patient is placed on the device and air is withdrawn, the mattress becomes rigid and conforming, automatically padding voids.
Scan 3-6  **Patient Immobilizing Devices**  Short spine board.
Scan 3-6 (continued)  Patient Immobilizing Devices  Long spine board.
Scan 3-6 (continued)  Patient Immobilizing Devices  Patient properly secured to short spine board.
Scan 3-6 (continued)  Patient Immobilizing Devices  Patient properly secured to vest-type extrication device.
Scan 3-6 (continued)  Patient Immobilizing Devices  Vest-type extrication device.
Scan 3-6 (continued)  Patient Immobilizing Devices  Patient properly secured to long spine board.
Figure 3-8  A patient in the recovery position.
Scan 3-7  Non-Urgent Moves, No Suspected Spine Injury  EXTREMITY CARRY  The extremity carry may be used as an emergency move or a non-urgent move for patients with no suspected spine injury.

Place the patient on his back with knees flexed. Kneel at the patient’s head. Place your hands under his shoulders. The second EMT kneels at the patient’s feet, grasps the patient’s wrists, and lifts the patient forward. At the same time, slip your arms under the patient’s armpits and grasp his wrists. The second EMT can grasp the patient’s knees while facing, or facing away from, the patient. Direct the second EMT, so you both move to a crouch, and then stand at the same time. Move as a unit when carrying a patient.

If the patient is found sitting, crouch and slip your arms under the patient’s armpits and grasp his wrists. The second EMT crouches, then grasps the patient’s knees. Lift the patient as a unit.
Scan 3-7 (continued) Non-Urgent Moves, No Suspected Spine Injury

DRAW-SHEET METHOD (1) Loosen the bottom sheet of the bed and roll it from both sides toward the patient. Place the stretcher, rails lowered, parallel to the bed and touching the side of the bed. EMTs use their bodies and feet to lock the stretcher against the bed.
Scan 3-7 (continued)  Non-Urgent Moves, No Suspected Spine Injury  DRAW-SHEET METHOD  (2) EMTs pull on the draw sheet to move the patient to the side of the bed. Both use one hand to support the patient while they reach under him to grasp the draw sheet. Then they simultaneously draw the patient onto the stretcher.
Scan 3-7 (continued)  Non-Urgent Moves, No Suspected Spine Injury  DIRECT GROUND LIFT  (1) The stretcher is set in its lowest position and placed on the opposite side of the patient. The EMTs face the patient, drop to one knee, and, if possible, place the patient’s arms on his chest. The head-end EMT cradles the patient’s head and neck by sliding one arm under the neck to grasp the shoulder, moving the other arm under the patient’s back. The foot-end EMT slides one arm under the patient’s knees and the other arm under the patient above the buttocks.
Scan 3-7 (continued)  Non-Urgent Moves, No Suspected Spine Injury  DIRECT GROUND LIFT  (2) On signal, the EMTs lift the patient to their knees.
Scan 3-7 (continued)  Non-Urgent Moves, No Suspected Spine Injury  DIRECT GROUND LIFT  (3) On signal, the EMTs stand and carry the patient to the stretcher, drop to one knee, and roll forward to place him onto the mattress. NOTE: If a third rescuer is available, he should place both arms under the patient’s waist while the other two slide their arms up to the mid-back or down to the buttocks, as appropriate.
Scan 3-7 (continued)  Non-Urgent Moves, No Suspected Spine Injury  DIRECT CARRY  Place the stretcher at a 90° angle to the bed, depending on the room configuration. Prepare the stretcher by lowering the rails, unbuckling straps, and removing other items. Both EMTs stand between the stretcher and bed, facing the patient.
Scan 3-7 (continued) Non-Urgent Moves, No Suspected Spine Injury  DIRECT CARRY  (1) The head-end EMT cradles the patient’s head and neck by sliding one arm under the patient’s neck to grasp the shoulder.
Scan 3-7 (continued)  Non-Urgent Moves, No Suspected Spine Injury  DIRECT CARRY  (2) The foot-end EMT slides a hand under the patient’s hip and lifts slightly. The head-end EMT slides the other arm under the patient’s back. The foot-end EMT places arms under the patient’s hips and calves.
Scan 3-7 (continued)  Non-Urgent Moves, No Suspected Spine Injury  DIRECT CARRY  (3) EMTs slide the patient to the edge of the bed and bend toward her with their knees slightly bent. They lift and curl the patient to their chests and return to a standing position. They rotate, then slide the patient gently onto the stretcher.
Figure 3-9  For many patients, the position of comfort is a semi-sitting position.
Scan 3-8  Transfer to a Hospital Stretcher  (1) Position the raised ambulance cot next to the hospital stretcher. Hospital personnel then adjust the stretcher (raise or lower the head) to receive the patient.
Scan 3-8 (continued)  Transfer to a Hospital Stretcher  (2) You and the hospital personnel gather the sheet on either side of the patient and pull it taut in order to transfer the patient securely.
Scan 3-8 (continued)  Transfer to a Hospital Stretcher  (3) Holding the gathered sheet at support points near the patient’s shoulders, mid-torso, hips, and knees, you and the hospital personnel slide the patient in one motion onto the hospital stretcher.
Scan 3-8 (continued)  Transfer to a Hospital Stretcher  (4) Make sure the patient is centered on the stretcher and the stretcher rails are raised before turning him over to the emergency department staff.