Lifting & Moving Patients

What is Rule #1 of lifting and moving patients?
Protecting Ourselves!

PEARLS of Lifting and Moving
• Excellent Body Mechanics
• Excellent Communication
• Proper Weight Distribution
• Get as many People as Needed
• Use the Right Tools for the Job
• Safety, Safety, Safety
• Take care to avoid injury whenever a patient is moved.
• Practice using equipment.
• Know that certain patient conditions call for special techniques.

How do we carry equipment?
Close to our bodies

Moving and Positioning the Patient
Body Mechanics

- Shoulder girdle should be aligned over the pelvis.
- Lifting should be done with legs.
- Weight should be kept close to the body.
- Grasp should be made with palms up.

Proper Lifting

Correct Body Mechanics

Incorrect Body Mechanics

Body Mechanics
Performing the Power Grip

Performing the Power Lift

Weight and Distribution

• Patient will be heavier on head end.
• Patients on a backboard or stretcher should be diamond carried.

Diamond Carry

One-Handed Carrying

Body Mechanics
Weight and Distribution

- Wheeled ambulance stretcher weighs 40–145 lb.
  - Generally too heavy for use on stairs

Carrying Backboard or Cot on Stairs

Stair Chair

Using a Stair Chair

Principles of Safe Reaching and Pulling

Principles of Safe Reaching and Pulling
### Principles of Safe Reaching and Pulling

- Log rolling
- Log roll the patient onto his or her side to place a patient on a backboard.

### General Considerations

- Plan the move.
- Look for options that cause the least strain.

### Geriatrics

- Emotional concerns
  - Fear
- Skeletal concerns
  - Osteoporosis
  - Rigidity
  - Kyphosis
  - Spondylosis
- Pressure sores
- Use special immobilizing techniques.
- Be compassionate.

### Bariatrics

- “Care of the obese”
- Increase in back injuries among EMTs
- Manufacturing of higher capacity equipment
- Use proper lifting techniques.
Three Categories of Moves

Emergent Moves
Urgent Moves
Non-Urgent Moves

Emergent Moves
Used when there is an immediate danger to the patient or rescuer.

Types of Emergent Moves

- Armpit Forearm Drag
- The Shirt Drag
- The Blanket Drag
- Arm Drag
- Front Cradle
- Firefighter’s Drag
- Firefighter’s Carry

Types of Emergent Moves (con’t)

- One Person Walking Assist
- Pack Strap

Emergency Drags

- Arm Drag
- Arm-to-Arm Drag

Emergency Drags

- Clothes Drag
- Blanket Drag
One-Rescuer Drags, Carries, and Lifts

- Front cradle - Fire fighter's drag

One-Rescuer Drags, Carries, and Lifts

- One-person walking assist - Fire fighter's carry

One-Rescuer Drags, Carries, and Lifts

- Pack strap

One-Person Rapid Extrication

Urgent Moves

- Used in patients with immediate threats to life or when patients need rapid transport.
- Type of Urgent Moves:
  - Rapid Extrication Technique

When to Use Rapid Extrication Technique

- Vehicle or scene is unsafe.
- Patient cannot be properly assessed.
- Patient requires immediate care.
- Patient's condition requires immediate transport.
- Patient is blocking access to another seriously injured patient.
Rapid Extrication

• Provide in-line support and apply cervical collar.

Rapid Extrication

• Rotate patient as a unit.

Rapid Extrication

• Lower patient to the backboard.

Types of Non-Urgent Moves

• Direct Ground Lift
• Extremity Lift
• Direct Carry
• Draw Sheet Method

Non-Urgent Moves

Used when there is no immediate threat to life with patient or rescuers.

Nonurgent Moves

• Direct ground lift
**Nonurgent Moves**

- Extremity lift

**Transfer Moves**

- Direct carry
  - Draw sheet method

**Equipment to Help Move Patients:**

- Wheeled Stretcher
- Backboard
- Kendrick Extrication Device (KED)
- Scoop Stretcher
- Stair Chair
- Basket Stretcher (Stokes Basket)
- Flexible Stretcher (Road Cot)

**Wheeled Ambulance Stretcher or Cot**

- Most commonly used device
- Has specific head and foot ends
- Has a folding undercarriage
- EMT-B must be familiar to specific features of cots used in the ambulance.
Types of Stretchers

- Bariatric stretcher
  - Specialized for overweight or obese patients
  - Wider wheel base for increased stability
  - Some have tow package with winch.
  - Rated to hold 850–900 lb
  - Regular stretcher rated for 650 lb max.

Types of Stretchers

- Pneumatic and electronic-powered wheeled stretcher
  - Battery operated electronic controls to raise/lower undercarriage
  - This increases the weight of stretcher.
  - Hazardous for uneven terrain or stairs

Patient-Moving Equipment

Backboard

Patient Immobilized on Long Spine Board
Kendrick Extrication Device (KED)

Short Spine Board

Scoop Stretcher

Scoop Stretcher

Stair Chair

Basket Stretcher
Portable Stretcher

Flexible Stretcher

Neonatal Isolette
– Also called an incubator
– Neonates cannot be transported on a wheeled stretcher.
– Isolette keeps neonate warm, protects from noise, draft, infection, excess handling.
– Isolette may be secured to wheeled ambulance stretcher or freestanding.

Decontamination
• Decontaminate equipment after use.
  – For your safety
  – For the safety of the crew
  – For the safety of the patient
  – To prevent the spread of disease

Patient Packaging
• Recovery Position
• Spinal Motion Restriction
• Position of Comfort
• Shock Position
• Pregnancy Position

Recovery Position – Unconscious Patient
Position of Comfort

Shock Position
Patient Without Spinal Injury

Transferring the Patient To a Hospital Stretcher

Position stretcher.

Pull sheet under patient taut.

Slide patient to hospital stretcher.
Be sure patient is centered. Raise side rail.

Medical Restraints
- Evaluate for correctible causes of combativeness.
  - Head injury, hypoxia, hypoglycemia
- Follow local protocols.
- Restraint requires five personnel.
- Restrain patient supine.
  - Positional asphyxia may develop in prone position.

Medical Restraints
- Apply restraint to each extremity.
- Assess circulation after restraints are applied.
- Document all information.

Personnel Considerations
- Remember, an injured rescuer cannot help anyone.
- Questions to ask before moving patient:
  - Am I physically strong enough to lift/move this patient?
  - Is there adequate room to get the proper stance to lift the patient?
  - Do I need additional personnel for lifting assistance?

Questions?