

Portland NET* Basic Training

*Neighborhood Emergency Team



Unit 7: Light Search & Rescue Operations

Incorporating FEMA CERT 2019 course material, with expanded content due to our regional challenges.



FEMA

Unit 7: Light Search & Rescue Operations

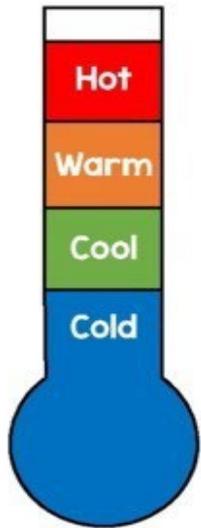


Part 2: Rescue Methodology



FEMA

What's my Zone?



- **HOT:** Unsafe for operations—Evacuation only.
- **WARM:** Safe enough for essential operations
- **COOL:** Safe for medical treatment and command
- **COLD:** No operations needed or pending

Create a Safe Environment



- Perform a 360° size-up and identify hazards
- Check rescuer PPE and equipment
- Confirm communications and procedures
- Provide instructions consistent with building damage level
- Evacuate survivors as quickly as possible



PM 7-18

Precautions to Minimize Risk



- Know your capacity and limitations
- Follow all safety procedures and report unsafe conditions
- Work quickly in a manner consistent with damage/threat level
- Stay within your assigned team role

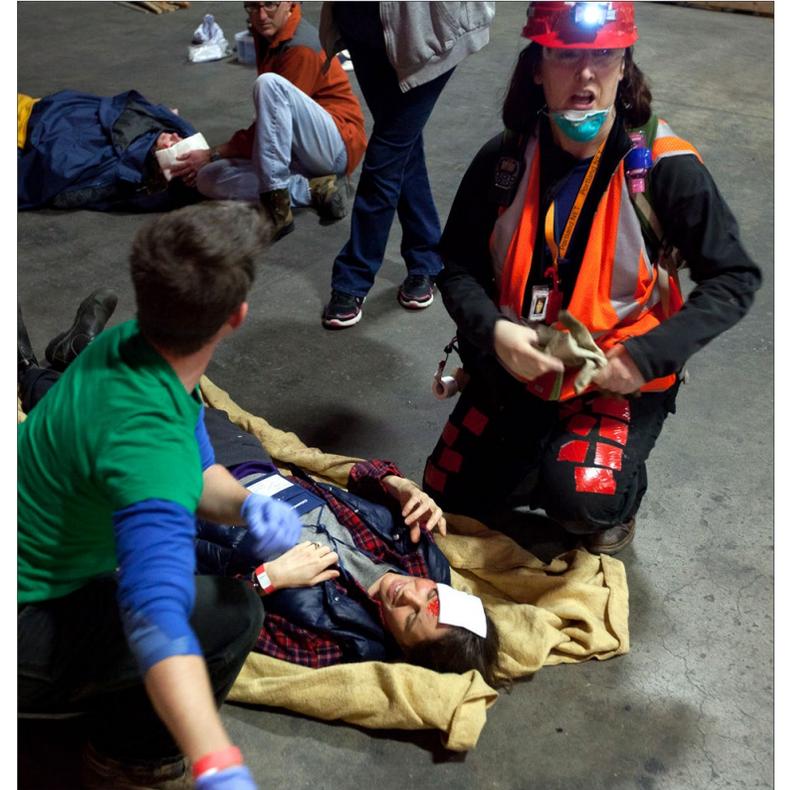


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Rescue Operations



- Survey area for any hazards
- Triage survivors
- Move debris impeding rescue
- Extract survivors not trapped
- Secure trapped survivors from additional injury
- Apply needed cribbing & levering to extricate trapped survivors.



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Extrication in 4 Steps

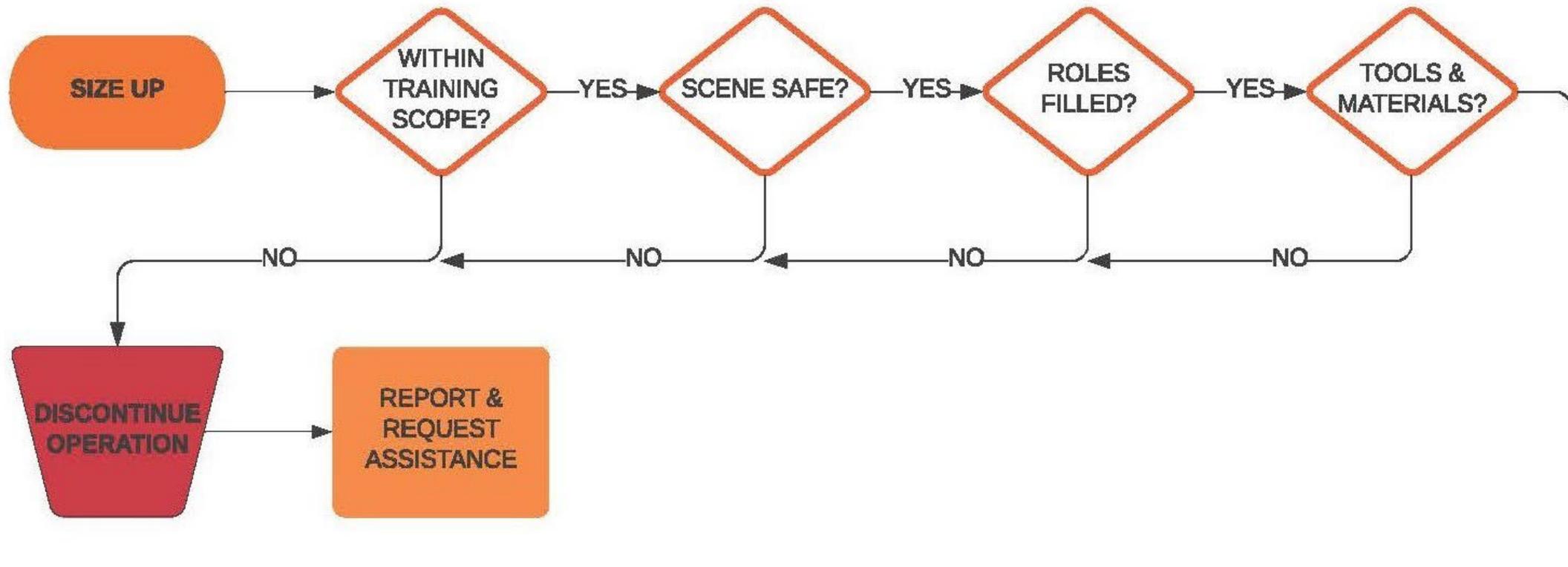


1. **Size up** the field of operations
2. **Secure** the scene for your safety
3. **Release** the survivor from entrapment
4. **Remove** the survivor & transport



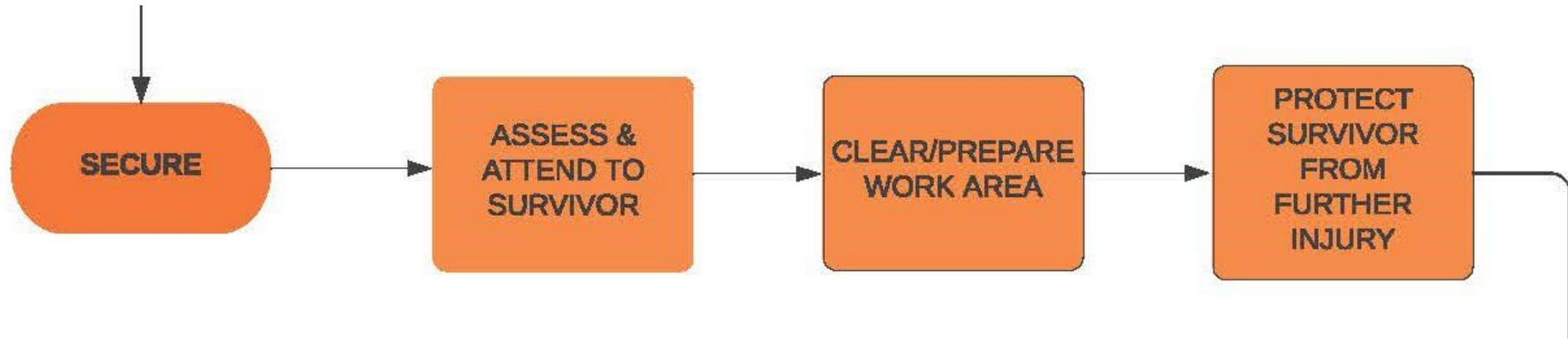
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Step 1 – Size-up



PROCEED TO STEP 2

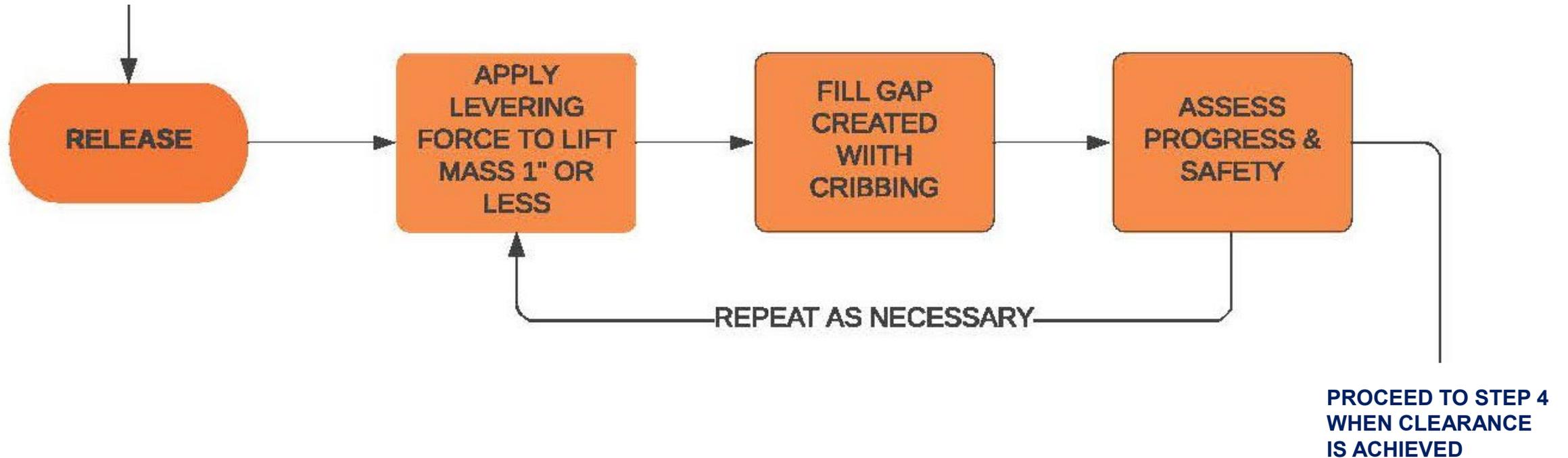
Step 2 – Secure the Scene



PROCEED TO STEP 3



Step 3 – Release Survivor



Step 4 – Remove Survivor



Cribbing and Levering



- Uses simple machines & mechanical advantage rather than brute force.
- Maintains control of the object being raised at all times.
- Promotes safety & reduces uncertainty.
- Allows for various materials to be used, with precautions.

Sample Cribbing Blocks



Extrication Team Roles:



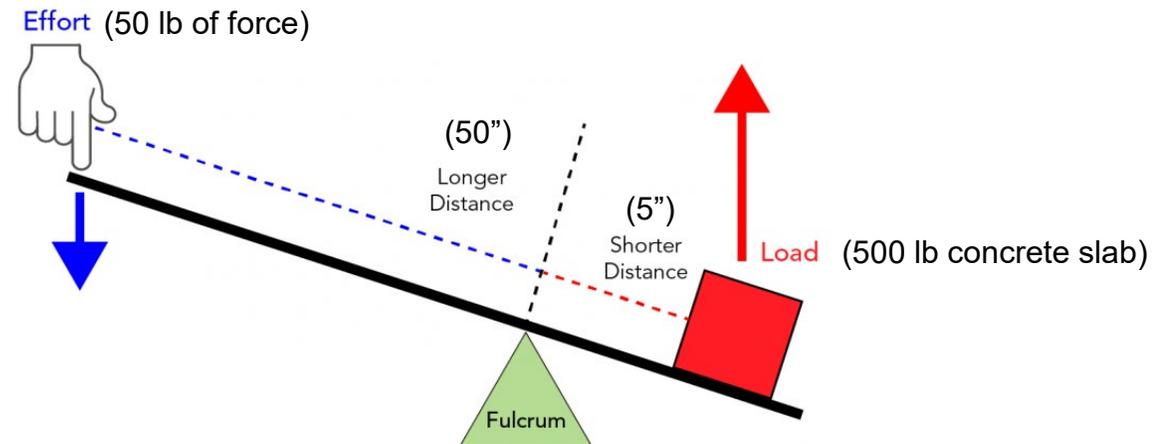
- Team Leader
- Lever Operator
- Cribbers (2)
- Safety Lead
- Medical Lead



Mechanical Advantage



A Class 1 Lever and Fulcrum with a Mechanical Advantage of 10

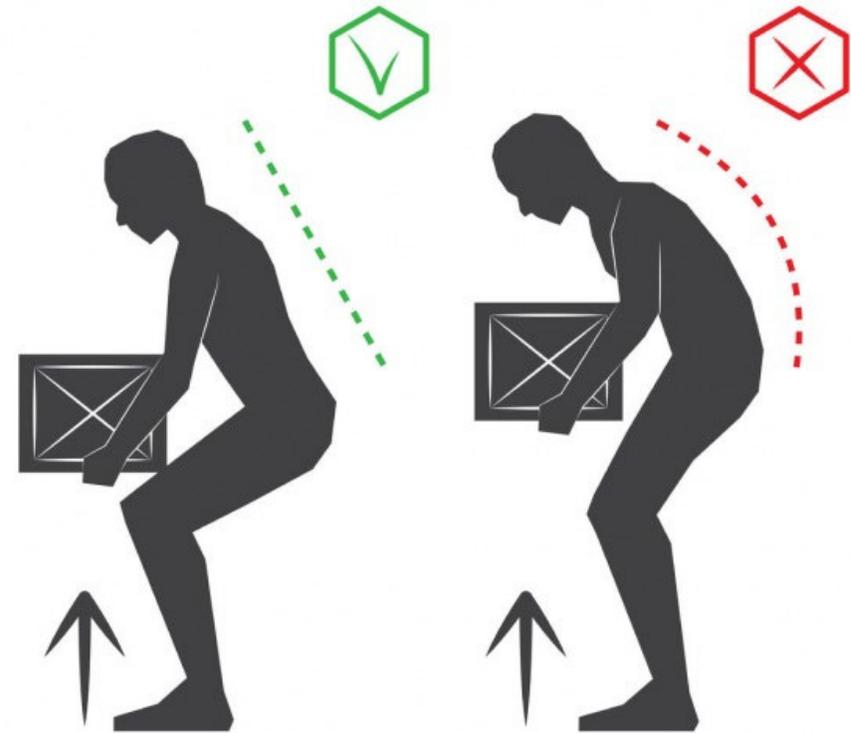


To raise the 500 lb slab 1 inch, you apply 50 lbs of force over 10 inches

Proper Lifting Procedures



- Size up your lift
- Keep your back straight
- Bend at your knees, not at your back
- Keep the load close to your body
- Push up with your legs



Types of Removal



1. Self removal
2. Assisted removal
3. Lifts & Carries: Blanket, MegaMover, Backboard, Chair & SKED
4. Drags: Backboard & Blanket



Which Extrication Method?



Depends on a number of criteria:

- General stability of the immediate environment
- Number of rescuers available
- Strength and ability of the rescuers
- Condition of survivor



PM 7-21

One-Person Arm Carry



- Small patients only
- Lift around patient's back and under knees
- Lift patient by keeping your own back straight and lifting with legs



PM 7-21

Two-Person Carry



Consider Applicability



Hint: Basically, never.

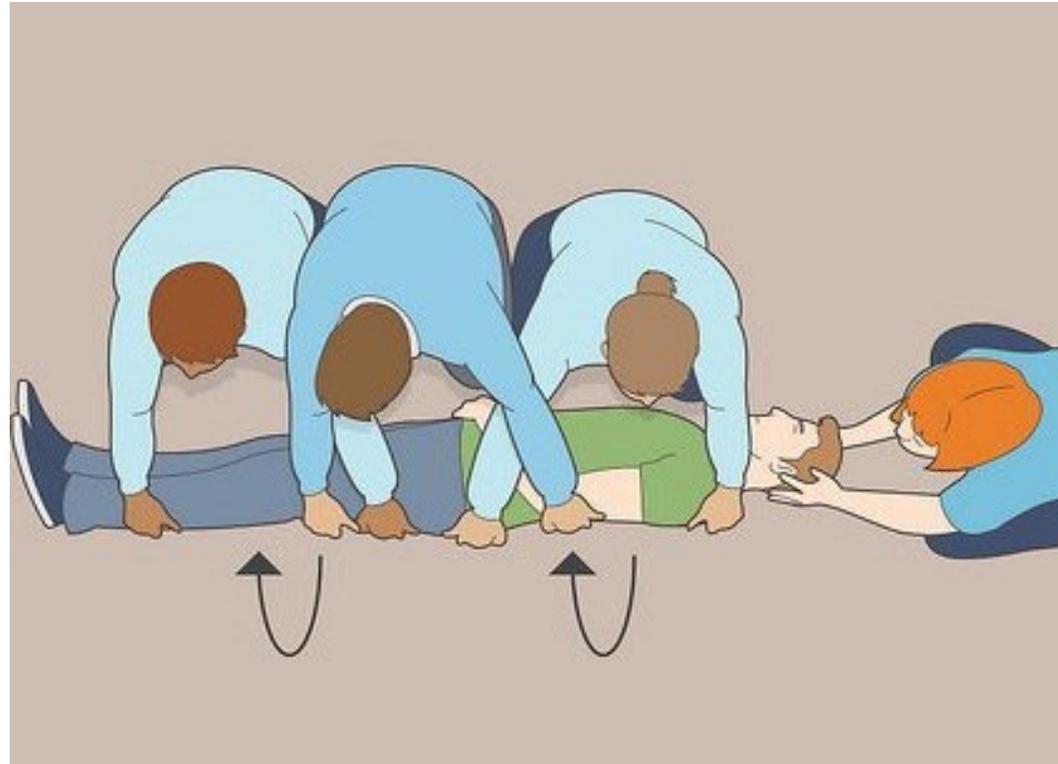


Chair Carry



<https://www.youtube.com/watch?v=bXfHp4Sj8wM>

Log Rolling



Blanket & MegaMover Carry



- 7 Person team preferred
- Position by height & lifting capacity
- Person at the survivor's head is leader
- Centering on the blanket is essential
- Know your lifting capacity
- Navigate doorways & stairs correctly
- Drag only when necessary

<https://www.youtube.com/watch?v=6aWzcnQSkJk>



SKED



- Rigid enclosure protects spine & head
- Fully wraps injured
- Greater stability on stairs or steep terrain
- Bulkier than MegaMover
- Expensive



<https://www.youtube.com/watch?v=NvIAXKDzHuY>

Unit Summary (Unit 7)



You should know:

- What Zone you are operating in
- How to decide whether to attempt rescue
- How to perform search and rescue sizeup
- How to do building search markings
- How to extricate survivors safely
- How to transport survivors to a safe area



PM 7-28

Q&A and Wrap-up



PBEM “Carries & Extractions” video: <https://vimeo.com/593119158>

