



Lifting and Moving Patients

Learning Resources

For use in First Responder Accreditation and
Reaccreditation programs

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Introduction

Everybody has a responsibility to demonstrate appropriate manual handling techniques whilst at work or at home. The Australian Workers' Union website states around 40% of all compensable injuries, costing around \$28.5 million each year, are musculoskeletal and manual handling related.

Manual handling training for any given workplace can be a course in its own right and is something that is practiced every day, in every situation whether at home or at work, from lifting a chair to moving a large quantity of soil in the garden.

This topic will cover information on what is manual handling and how to correctly manual handle. It is important that you do this when you are fit and able in order to prevent any injury to yourself or other member's involved.

Definition

Manual handling can be defined as **any** activity that requires you to use your body (musculoskeletal system specifically) in performing your work.

This may include any task that involves;

- Lifting/lowering
- Pushing/pulling
- Carrying
- And otherwise moving or restraining any person, animal or item

Given the nature of work undertaken by those that provide first aid in any of its forms it is also deemed as high risk (of sustaining an injury). There are many factors working to make it high risk but the very act of handling people is enough according to the Australian Worker's Union website (accessed 14th August 2011).

Things to consider

Before lifting or moving either a piece of equipment or patient it is important to consider a number of factors including the following:

- Weight of object/patient
- personal safety
- physical surroundings
- available equipment
- available human resources
- nature of illness or injury
- the patient's ability to help move them

Basic Techniques

When assessing for lifting and moving (manual handling) there are techniques that need to be discussed and assessed.

Related to all manual handling

- **Never lift alone** – by example, two people lifting an 80kg person are only lifting 40kg each – still a significant weight but much less than lifting by yourself
- **Always plan the move** – if you injure yourself in a poorly planned move you can also cause further injury to the patient and even prevent yourself from providing further assistance to them – don't become the patient

Specific to Patients

- Patients can often assist themselves and the main exceptions to this are the unconscious patient or the patient with a spinal injury – even if a patient has a leg injury they may be able to assist in moving themselves rather than you having to do it all for them
- When lifting or moving a patient with others, co-ordinate your moves e.g. utilize instructions like “on the count of three we lift to a standing position”
- Always think about the position of the patient at the start and end if you have to lift e.g. if lifting from the ground onto a stretcher, make sure the stretcher is as close to the patient as practical and that the head end is at the head of the patient etc.

Principles for lifting

Incorrect lifting techniques may result in serious injury to the member or the patient. Injuries from lifting and carrying are not always evident immediately and may result from cumulative strain from incorrect procedures over a period of time.

General principles

The hazards associated with lifting are reduced with correct use of these principles:

- assess environment before lifting to ensure clear access
- assess the weight to be moved
- explain techniques to be used with all involved
- use lifting devices where available
- position both feet slightly apart to ensure stability and balance
- face the direction of proposed movement
- one person gives commands but all work as a team
- maintain normal back curves and bend at the hips and knees with maximum use of leg muscles
- lift the weight close to your center of gravity, with arms close to the body and a firm grip
- keep head erect and chin in
- use less effort by using rolling, turning or pushing where possible, use body weight to create momentum and move forward as lift is made, use a patient sliding device for transfers where appropriate

Principles when moving patients

The decision to move a patient and the method used is based on the patient's condition, injuries and any dangers that may exist. If you need to move the patient, the comfort and safety of all involved will be improved by an understanding of the nature and mechanics of the body.

The hazards associated with lifting are reduced with correct use of these principles:

- assess environment before lifting to ensure clear access
- assess the weight to be moved
- explain techniques to be used with all involved
- explain techniques to be used to the patient
- use lifting devices where available
- seek patient cooperation before proceeding
- position both feet slightly apart to ensure stability and balance
- face the direction of proposed movement
- one person gives commands but all work as a team

- maintain normal back curves and bend at the hips and knees with maximum use of leg muscles
- lift the weight close to your center of gravity, with arms close to the body and a firm grip
- keep head erect and chin in
- use less effort by using rolling, turning or pushing where possible, use body weight to create momentum and move forward as lift is made, use a patient sliding device for transfers where appropriate

Equipment

Equipment for moving resources

When moving first aid equipment or other resources e.g. tables etc. it is important to consider how you would move them safely and whether using lifting and moving equipment would assist. Below are some examples of lifting and moving equipment.

- Trolley
- Stair walker
- Hoist

Equipment for moving patients

Stretchers – perfectly suited for moving patients around whether into a vehicle, hospital or simply within a first aid post. Stretchers usually have the capacity to be lowered and then raised once the patient has been secured which can also aid in lifting.

Scoop Stretchers – a lifting device that should be removed when the patient is placed on a standard stretcher. The stretcher enfolds and closes shut underneath a patient in the position in which they are found. In difficult maneuvering situations, the patient should be strapped to the stretcher.

Spine Board – designed to immobilize spinal injuries to maintain spinal alignment during lifting. They must be used in conjunction with another type of carrying stretcher.

Wheelchairs – are often used to move patients around and often we are called upon to move people into, or out of, them.

When lifting and moving patients we have to consider equipment 'attached' to the patient and how that may impact on how we lift or move them.

Using a stretcher to lift a patient

Leader takes control and gives all instructions:

1. Instruct members to **'stand next to stretcher'** at each of four corners facing direction of travel. (if there are enough members have two more members assist by standing next to the stretcher in the middle of each side)
2. stretcher is carried **feet first**
3. **leader is positioned at head end** to observe patient's condition, position on stretcher and to direct procedures
4. instruction is given to **prepare to lift** and all squat down and grasp handles firmly in readiness, keeping the back straight and bending at the hips and knees
5. instruction is given to **lift stretcher** and all raise steadily together until standing and steady on their feet, keeping arms straight and weight close to the body at all times
6. on the instruction to **'move'** all step off on the foot nearest the stretcher, walking out of step with the person next to or in front of you gives a smoother ride for the casualty and reduces swaying of the stretcher
7. the step should be a short one of around **50cm (20 in)**
8. on the instruction to **halt** all should stand steady
9. instruction is then given to lower and the stretcher is placed gently on the ground
10. if carried by **two members**, the other two, including the leader should walk midway along and assist at the sides when raising, lowering or traversing uneven ground
11. when moving on slopes or steps the casualty should face in the direction that best suits their condition.

Note: you should get your mentor/divisional trainer to instruct you on using the equipment that you have available to use, to ensure that you set them up correctly and use correctly.

Loading patient onto a scoop stretcher

1. Position patient:
 - arms against body
 - legs straight and together
 - no objects under casualty—empty hip pockets.
2. Prepare scoop stretcher:
 - unlock and extend stretcher to appropriate length
 - unlock end latch and open—scissors-like.
3. Carefully place scoop around and slide under patient.
4. Close stretcher and secure latch at head end.
5. Secure the patient to stretcher with straps.

Note: *Opening the stretcher 'scissors-like' takes room. If space is limited, then both ends may be opened and carefully placed around the patient and closed. Take care not to pinch the patient by lifting up clothing in areas likely to be pinched, and easing stretcher underneath.*

Log rolling patient onto a full spinal board

1. Using a team of at least 6 people:
 - select a leader to take position at patient's head
 - select a first aider to take position at site of patient's injury
 - select another first aider to take position by patient's feet
 - remainder of team members take position by patient's side— at chest, waist and knees
 - all team members except leader on same side of the patient.
2. Team members place hands on patient's body, on opposite side to where standing.
3. On signal from leader, team members apply pressure and slowly roll patient towards them.
4. Leader places spinal board, with straps arranged, beside patient on opposite side to other team members.
5. Leader signals to roll patient slowly back onto board as a team—without twisting patient's body.
6. Secure the patient to board.
7. Lift patient and board onto stretcher.