



## **Patient & Material Lift/Transfer Manual**

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HCHSA Handle with Care

A comprehensive approach to developing and implementing a patient handling program

Resource Manual

Second Edition

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and

Back to Basics

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**The “Healthy Moves” name was submitted by Alan Elphick**

# Introduction to Lifting and Transfer Program

## **Program Introduction**

In an effort to reduce musculoskeletal injuries, improve health and enhance staff member's physical health/safety knowledge, Grey Bruce Health Services has a Musculoskeletal Health/Safety Program named Healthy Moves.

There are many factors which impact on the severity and frequency of injuries to healthcare workers. These include an aging work force, labor shortages, staff retention issues, increased patient acuity, and increased rates of obesity.

The goal of this program is to implement a safe and effective patient and material handling program. The program has two main foci: Patient Lifts/Transfers & Material Handling. To ensure that safe lifting/transferring techniques are used throughout the facility, specific assessment/lifting/transferring techniques have been sanctioned by The Grey Bruce Health Services.

### **Goals and Objectives**

#### **Goals**

- To protect the caregiver and patients from injury
- To promote high standards of care for the patient by using safe and consistent transfers, lifts and repositioning techniques
- To encourage the use of safe, effective and consistent transfers and lifts
- To ensure safe and effective material handling.

#### **Objectives**

- To provide skills to staff to reduce the risk of injury during patient and material handling activities
- To teach staff how to perform safe body mechanics
- To enable staff to solve problems related to patient transfers, lifts and repositioning
- To enable staff to continually assess all risk factors and choose appropriate patient and material handling techniques
- To promote consistent techniques in patient and material handling
- To ensure maximum participation and independence of the patient during transfers, lifts and repositioning

Physiotherapists, Occupational Therapists and others with special expertise may, based on their assessment, choose to use a lift or transfer

that does not appear in this manual. In this case, they may also choose to teach the selected lift or transfer to other staff and/or the patient's family.

This manual concentrates on the aspects of musculoskeletal health/safety that are essential for your unit/department. It includes information about the lift policy, the transfer decision tree, patient assessment, transfer/lift/repositioning techniques, and information about body mechanics and preventative exercise.

If you have any questions about the content of this manual or the program in general, please contact the Occupational Health & Safety Department.

### **Responsibilities:**

Managers and Employees all have a role in making the program a success.

#### **Responsibilities of Managers**

- Enable all staff to attend in-services.
- Support the use of approved assessment/lift/transfer techniques.
- Attempt to provide transitional return to work for injured employees, in association with the Occupational Health & Safety Department.
- Explore ergonomic adjustments that could improve back health & safety.
- Ensures that caregivers within the unit are provided with education and training on patient mobility assessment form, protocols and equipment or assist devices and ensures it is utilized appropriately. (Safe Patient Mobility Policy)

#### **Responsibilities of Employees**

- To attend provided education regarding safe patient and material handling
- Use the decision tree to guide decision regarding patient handling
- Communicate with coworkers regarding the appropriate patient handling technique
- Notify the manager of any unsafe lifting condition

#### **All Caregivers (Safe Patient Mobility Policy):**

- Are responsible for working together in a safe and healthful manner and are required to utilize patient mobility equipment, assistive devices and obtain staff assistance whenever possible.
- Prior to handling patient(s), all caregivers are responsible for assessing the patient and their mobility.

- All caregivers are required to report any changes in the patient's condition that may affect the patient's mobility, to the attending registered nurse and have it recorded in the nursing care plan.
- Caregivers will receive training on the patient mobility equipment prior to use.
- All caregivers are required to report any barriers or limitations with patient mobility protocols to the attending registered nurse. These may include:
  - Unavailable equipment
  - Assistance availability
  - Lack of training for equipment
  - Equipment malfunctioning
- Identifies and corrects potential risks that may affect patient mobility i.e. broken beds, equipment.
- Use the Decision Tree.

### **Occupational Health & Safety Committee**

- Receive concerns regarding the lift/transfer education program and discuss these at the committee meetings
- Make recommendations to the Executive Committee, based on feedback from employees.
- Be involved in the annual review of the program.

# Posture & Exercise

## **Posture**

It is important to develop good posture to minimize stress on your back, neck and shoulders and to help prevent injury.

Good posture maintains normal spinal alignment.

There should be a slight inward curve at the neck, a slight backward curve in the shoulder blade area, and a slight inward curve just above the pelvis. Maintaining the three curves allows each vertebra to be directly above/below the next vertebra which makes the spine more stable.

From the side the ear lobe should line up with the tip of the shoulder and just behind the greater trochanter at the hip and just in front of the lateral malleolus (outer ankle bone)

## Ideal Plumb Alignment: Side View



Surface Landmarks which Coincide with the Plumb Line. (This subject shows excellent alignment except that the head is slightly forward.)

Slightly posterior to the apex of the coronal suture.  
 Through the lobe of the ear. (Head is slightly forward.)  
 Through the external auditory meatus.  
 Through the odontoid process of the axis.  
 Through the bodies of the cervical vertebrae.

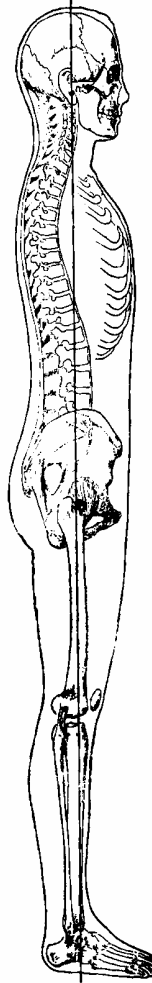
Through the shoulder joint (providing the arms hang in normal alignment in relation to the thorax).

Approximately midway through the trunk.  
 Through the bodies of the lumbar vertebrae.  
 Through the sacral promontory.

Slightly posterior to the center of the hip joint.  
 Approximately through the greater trochanter of the femur.

Slightly anterior to the center of the knee joint.  
 Slightly anterior to a midline through the knee.

Through the calcaneo-cuboid joint.  
 Slightly anterior to the lateral malleolus.



Anatomical Structures which Coincide with the Line of Reference

## **Postural Changes**

### **Postural changes can be caused by:**

1. An increase in weight especially in the abdominal area
2. Weak abdominal muscles
3. Tight hip muscles
4. High heeled shoes
5. Habit

These changes alter the curves of the spine and change alignment of the vertebrae.

## **Good Posture**

1. Minimizes the stress on joints, ligaments, discs and muscles
2. Allows for the efficient use of energy
3. Minimizes injury
4. Makes you look good

Good posture is not only important for standing but also for moving, doing activities, sitting and lying down.

## **Changing Your Posture**

**Correcting posture is not easy. Often people believe they have good posture and do not realize that postural changes have occurred. It takes time and practice to improve posture.**

**To get the feeling of good standing posture:**

1. Stand out from the wall about one foot with back to wall.
2. Bend your knees until back is flat against the wall.
3. Gradually straighten knees and move feet closer to the wall.  
Keep back against the wall (tightening seat muscles will help).
4. Step out from the wall keeping the position
5. Think about how it feels
6. Try to keep this position for as long as possible.

It will probably feel quite strange in the beginning. Repeat this activity whenever you think about it. Gradually the position will feel more normal. A new habit is as hard to make as an old one is to break.

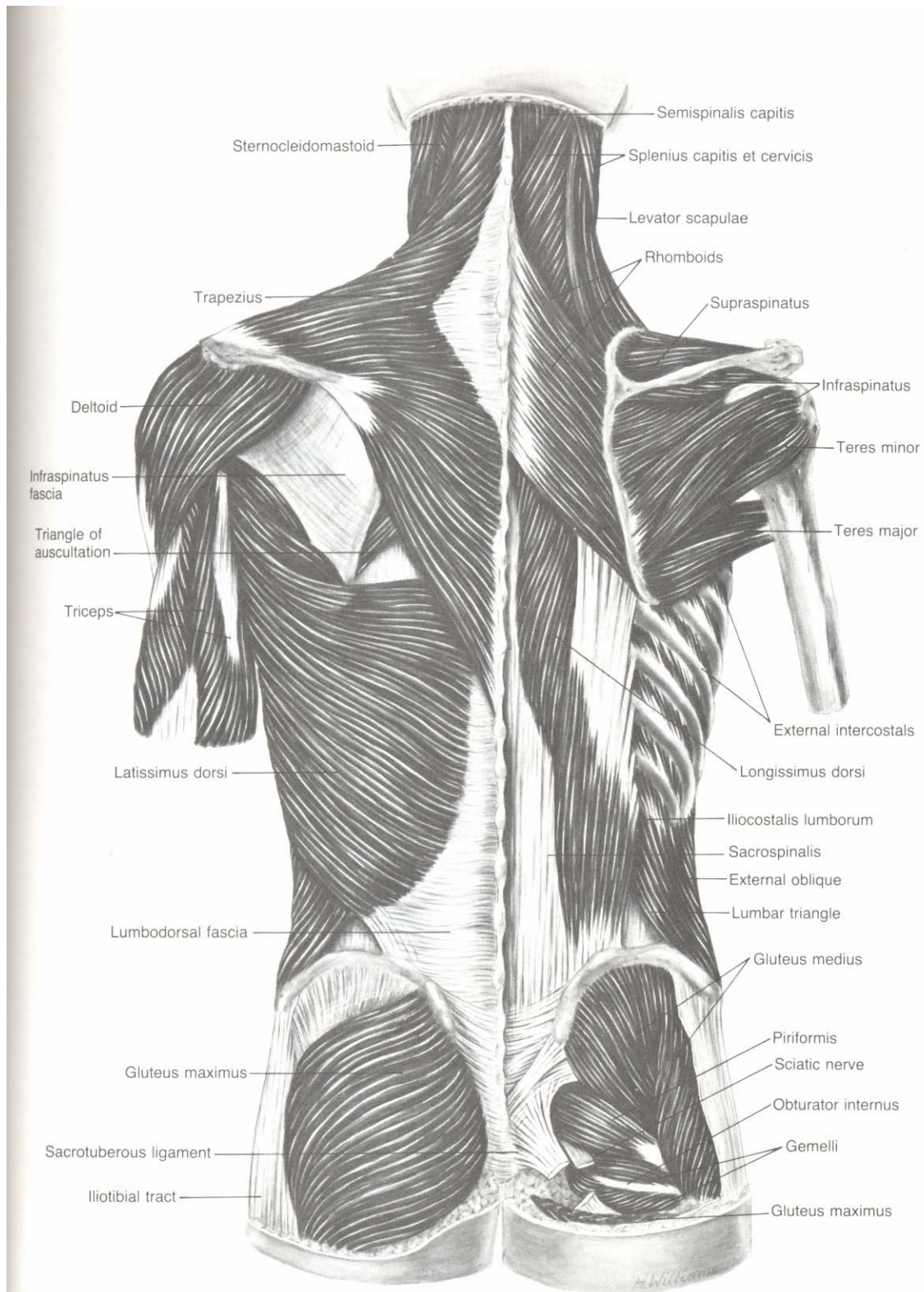
## **Getting your Back into a Good Position**

**Standing:** Put one foot on a low stool, rung of a chair, or shelf directly in front of you. This helps get the spine in a straight position. Switch feet regularly, i.e. every half hour.

**Sitting:** Choosing a firm chair helps to maintain normal spinal curves while sitting. Sit with feet supported firmly on the floor, hips and shoulders positioned against the back of the chair. A small roll or cushion to support the lower back is also helpful. Try to keep hips and knees at same level - use a stool to do this if necessary.

**Shoulder:** During lifting and carrying shoulder strains can also occur. Shoulders can be prone to wear and tear injuries during patient and material handling if working in awkward or repeated positions.

The rotator cuff is one of the common areas of injury. The rotator cuff is made up of 4 muscles. They provide support to the shoulder joint. The shoulder is a ball and socket joint. The socket is very shallow and depends on the muscles of the rotator cuff for support. These muscles include supraspinatus, infraspinatus, teres minor and subscapularis. The supraspinatus is an external rotator of the shoulder and is prone to becoming stretched and weakened making it work less efficiently. It is then prone to tendonitis and/or tears.



**FIGURE 6-8.** Muscles of the back. On the right side the trapezius, latissimus dorsi and gluteus maximus have been removed to show the deeper lying muscles.

## **The Importance of Exercise**

The more fit you are the less chance of back or shoulder strain/injury.

The key components of a balanced exercise program include:

- Cardiovascular fitness
- Flexibility
- Muscular Fitness - Strength  
- Endurance

A healthy back requires strong flexible abdominal and spinal muscles for support, as well as flexibility of the back and leg muscles. Healthy shoulders require strong balanced muscles as well. A strong core makes it easier and more efficient to move the extremities.

The following exercises done on a regular basis will help to keep your back and shoulders strong and healthy.

### **Rules of Exercise**

Hold your core stable (tummy tight) while doing exercise of the back and extremities

Be aware of your posture while exercising

Remember to breathe. Do not hold your breath.

Never force an exercise or continue an exercise that produces pain

Exercise daily

As you become stronger and more flexible it will be easier to maintain correct posture.

If you experience pain during the exercises consult a physiotherapist.

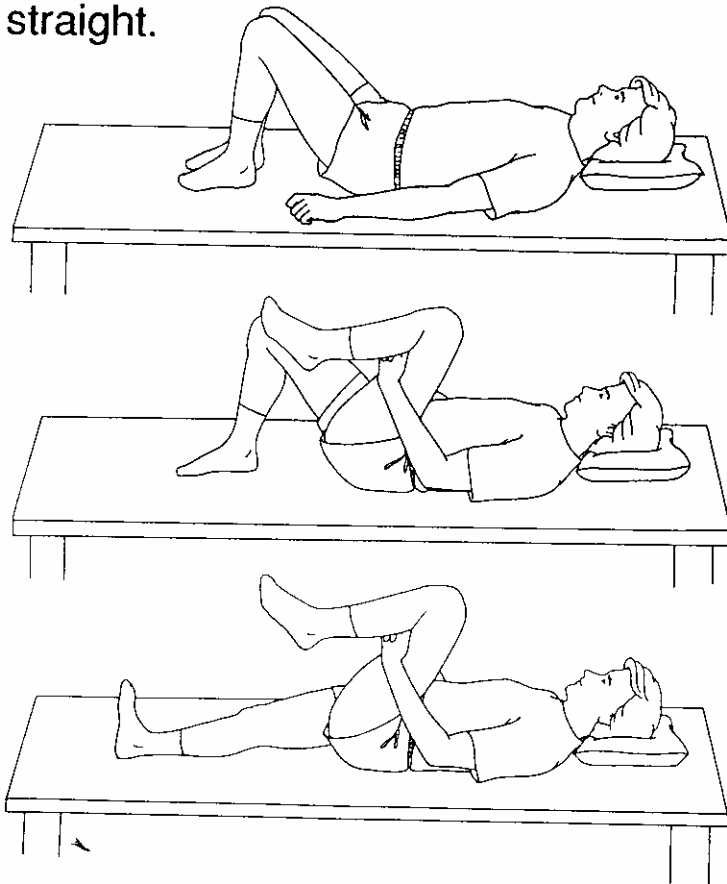
### **Basic Exercises**

These exercises can be done regularly to help with muscle imbalances developed through work and leisure activities. The exercises should be done slowly. It is not necessary to hold the exercises. Each exercise should be done 5-10 times.

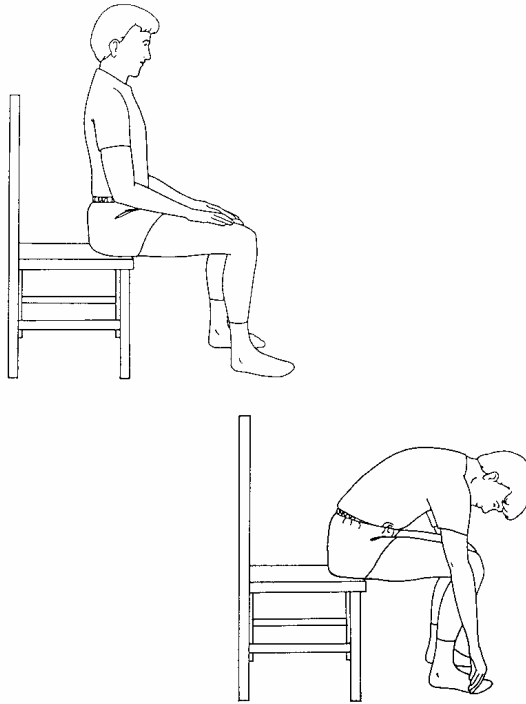
**Transverse Abdominals:** Tighten your core for men imagine walking into a cold lake, and for women imagine you are try to hold your urine after 8 glasses of water.

**Flexion in lying:** Lie on your back, knees bent with feet flat, raise one knee to your chest holding the back of the thigh with your hands. Repeat with the other leg.

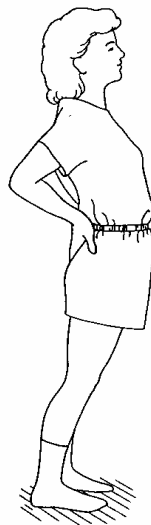
straight.



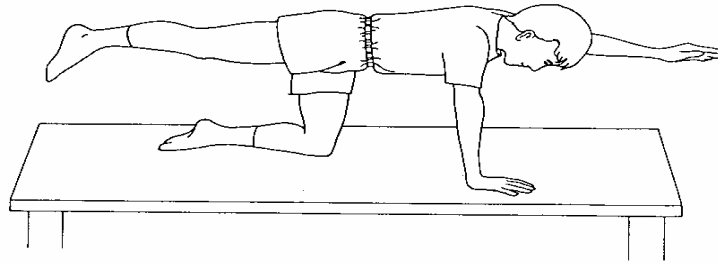
**Flexion in sitting:** Sitting, bend down towards the floor and return to the sitting position.



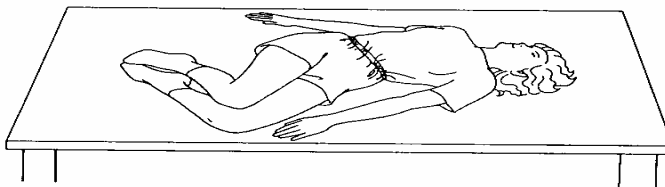
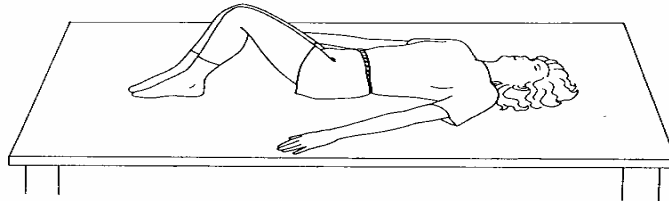
**Extension in standing:** Stand with your hands on your hips, stretch backwards while keeping your knees straight.



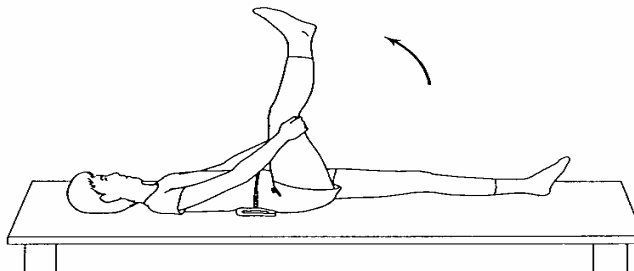
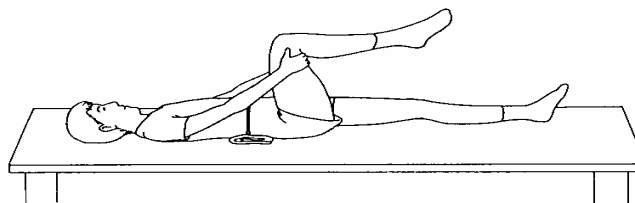
**Alternate arm/leg lift:** Position yourself on all fours, lift the opposite arm and leg at the same time. Repeat with other side.



**Trunk Rotations:** Lay on your back, bend your knees up with feet flat. Rotate your knees to each side.



**Hamstring Stretch:** Lie on your back, bring your thigh towards your chest, hold behind your knee and then **slowly** straighten your knee.



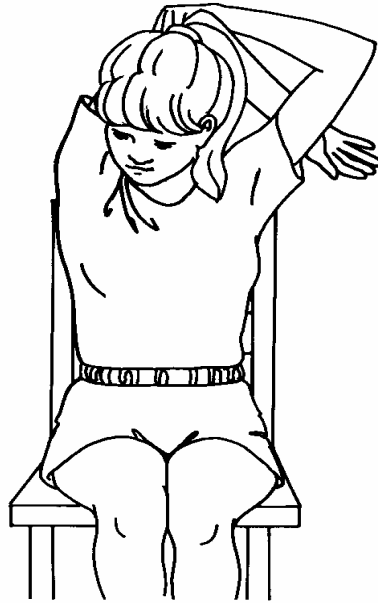
**Cervical Spine ROM:** Bend head forward, chin to chest. Tuck chin in. Look over each shoulder. Bend ear toward shoulder.



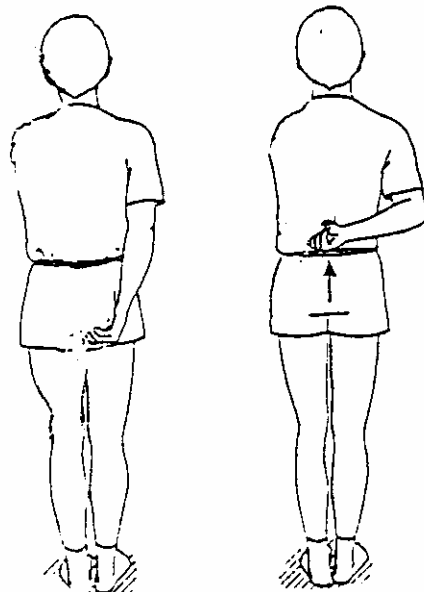
**Shoulder Adduction:** Place hand on back of opposite shoulder; use your other hand to further stretch your arm across your body.



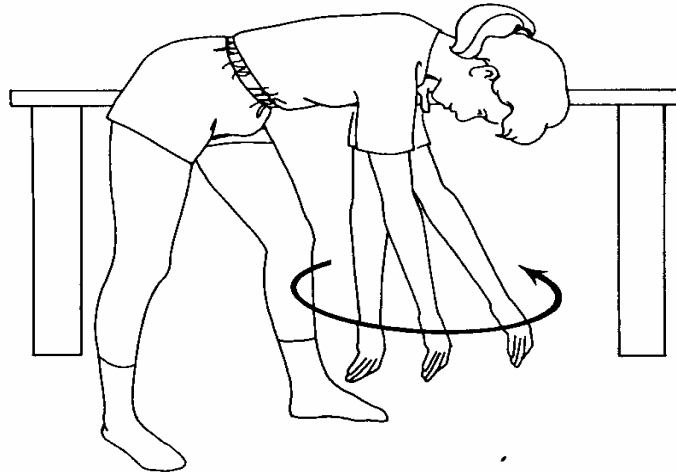
**Inferior Cuff Stretch:** Place hand behind head and use other hand to pull elbow towards head and down.



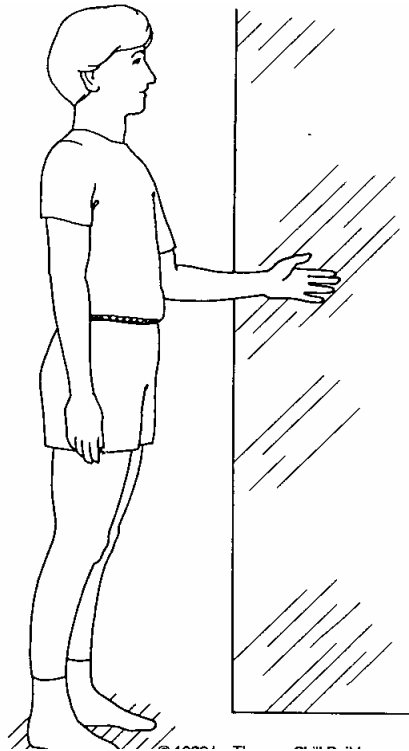
**Hand behind Back:** Place your hand behind your back and pretend you have a zipper in the back of your dress (or pants and shirt). Make an up and down motion.



**Pendular:** Bend over supporting yourself with one hand on your thigh/table, swing the other arm in a circle, clockwise and then counter clockwise.



**Resisted External Rotation:** Stand beside a wall, and place the outside of your wrist and hand against the wall, elbow bent at 90°, push your wrist and hand against the wall. **Do not push with your elbow.**



# Lifting Materials

## **Introduction**

Manual materials handling is involved in 25-35% of all industrial injuries.

It is important that sound body mechanics and proper lifting and handling techniques are used to try to prevent injury to your back or shoulder.

## **Assessment**

- Prior to lifting any object or materials an assessment of the most appropriate method of lifting should be completed. Plan the lift in your mind - organize the lift so that it will be best for you and your co-workers.
- If you are uncertain about your ability to lift an object safely, get help! Never "go it alone." Try the heft test. Get an idea if you can manage the lift.
- Always consider proper positioning of the spine and upper extremity to prevent injury.
- If you have an idea how the lift or environment could be improved, talk to your manager. Taking a few seconds to consciously prepare for the lift may prevent you or a co-worker from days, months or years of pain.

## **Preparation**

### **Before lifting anything prepare:**

- The environment
- The object
- The task
- Your posture

## **Environment**

- Avoid constricted spaces.
- Avoid changes in surface such as sticky or slippery floors.
- Dry up water on the floor.
- Avoid areas where there is awkward footing.
- Avoid heat and extreme cold.
- Move obstacles out of your way.
- Prepare the final destination of the lifted object.

## **Object**

- Use handles or hand holds for easy grasp.
- Keep the object close to you.
- Avoid large objects that extend the arms and impede vision.
- Avoid lopsided weights and loose contents.
- Mark total weights clearly.
- Mark all dangerous substances.
- If uncertain always get assistance.
- Separate into two or more loads when possible.

## **Task**

- Keep all repetitive lifts between hip and shoulder height.
- Use an adjustable platform if available.
- Keep carrying to a minimum - use a dolly or handcart to move items.
- Think the lift through before you do it.

### **Your Posture**

- Let the shift of your body weight and momentum do the moving - not back muscles!
- Let your strong leg muscles do the work.
- Turn by pivoting or stepping rather than by twisting your back.
- For heavy or complex loads **get help.**
- When two or more do the lifting, count together “1, 2, 3, Lift”, so that everyone moves at the same time.
- **Do not** attempt to catch an object that is falling.
- Position your arm in a neutral position where possible
- Avoid awkward arm positions

### **When lifting from waist height**

- Stand with feet apart in a walk stance position.
- Bend knees slightly.
- Enhance core stability. Tighten abdominal muscles before you lift.
- Maintain normal spinal alignment by keeping a slight inward curve just above the pelvis.
- Hold the item with both hands as close to your body as possible.

### **When lifting from the floor**

- Crouch to the floor by bending the knees. Can place one knee on the floor
- Maintain normal spinal alignment by keeping a slight inward curve just above the pelvis.
- Enhance core stability. Tighten the abdominal muscles before you lift.
- Hold the item with both hands as close to your body as possible.

## **Procedures**

The following procedures illustrate how to properly move certain materials.

### **Moving a Box from a Cart to a Shelf**

- Stand, facing the cart, with feet slightly apart, knees bent. Squat down until box is between waist and shoulder height.
- Pull the box toward you.
- Tighten abdominal muscles before lifting the box. Hold the box close to your body. Straighten legs. Turn feet and body to face shelf.
- To place a box on a low shelf, bend hips and knees, keep back straight, and lower box to the edge of the shelf. Using hands push box further back on the shelf if necessary.
- To place a box on a shelf that is above shoulder height, stand on a sturdy platform or a stepladder to raise you closer to the shelf. Place the box on edge of shelf. Using hands push the box further back on the shelf if necessary.

### **Moving a Box from the Ground to a Shelf**

- Facing the box, squat down to the floor. Place one knee on the floor. Keep the opposite foot flat on the floor in front of you.
- Pull the box toward you.
- Tighten abdominal muscles before lifting the box. Hold box close to your body. Straighten legs. Turn feet and body to face shelf.
- To place box on a low shelf, bend hips and knees, keep back straight, and lower box to the edge of the shelf. Using hands push box further back on the shelf if necessary.

## **Moving a Box from a Shelf to a Cart**

### **Low shelf:**

- To remove a box from a low shelf, stand facing the shelf. Squat to the floor. Keep your back straight. You can place one knee on the floor.
- Pull the box toward you.
- Tighten abdominal muscles before lifting the box. Hold the box close to your body.
- Straighten legs.
- Turn your feet and body to face the cart. Place the box on the cart. Remember to squat if the cart is low. Stand on a stool if the cart is high.

### **High shelf:**

- To remove a box from a high shelf, stand on a stool facing the shelf
- Pull the box toward you.
- Tighten abdominal muscles before lifting the box. Hold box close to your body. Step down from the stool.
- Turn your body and feet to face the cart.
- Place the box on cart using correct body mechanics.

## **Moving Box from Shelf to Floor**

- Follow the above guidelines for moving the box from shelf.
- To place the box on floor, keep the box close to your body, keep back straight, squat by bending your knees and place the box on the floor directly in front of you.

### **Moving a Box from one spot to another**

- Assess the load. If it is too heavy to carry yourself, get help or use a wheeled cart to move it. If you are making several trips use a cart.
- Make sure the floor space is free of obstacles.
- Remember to keep the box close to your body if you are carrying it. Always tighten abdominal muscles before lifting.
- Avoid bending or twisting from the waist when picking up, carrying, or putting down the box.

### **Moving a Cart**

- Remember that it is easier and safer to push a cart than to pull it.
- Hold handle of cart firmly. If there are no handles, grasp the edges of the cart.
- Keep body upright.
- Use your body weight to move the cart.
- If you are loading and moving the cart, keep the weight of the load manageable. It is better to put less on the cart and make more than one trip than to overload it and risk straining your back.

## **Repetitive Tasks**

Injury can also occur from repetitive tasks, just as it can with lifting, carrying and moving objects. Musculoskeletal injuries caused by repetitive movements, positions and static postures are called repetitive strain injuries (RSI). Examples of repetitive strain injuries are tennis elbow, carpal tunnel, shoulder tendonitis, etc. Other names are often used for RSI including Musculoskeletal Injuries (MSI), Cumulative Trauma Disorder (CTD) and overuse injuries.

### **Risk Factors for Repetitive Strain Injuries**

- 1. Repetitiveness**
- 2. Posture**
- 3. Forcefulness**
- 4. Mechanical Stresses**
- 5. Physical Stresses**

## **1. Repetition**

### **Work is considered repetitive when**

- A single task, motion or posture is performed more than 50% of the time
- Production exceeds 900 units/shift
- The work cycle is less than 30 seconds

### **To Decrease Repetition**

- Use job enlargement. Add other tasks to the job that use different movements or positions
- Use job rotation. Have workers rotate to different tasks that require different postures and movements
- Modify work/rest cycles. Increase the number or duration of rest periods
- Mechanize
- Automate

## **2. Posture**

Certain postures increase the risk of RSI. Wrist deviation, wrist flexion, wrist hyperextension, end range positions of the elbow and arms above the horizontal are all postures which increase the risk of RSI to the upper extremity. By changing the work or the workstation, the duration and awkwardness of the posture can be reduced.

Static and awkward postures of the trunk and lower extremity can also lead to problems.

### **If a job requires standing**

- Stand with good alignment
- Use a chair/sit-stand support to alternate sitting and standing
- Use a foot rail or stool to allow weight shift
- Use anti-fatigue matting on hard surfaces

### **Standing Work Surface Height**

- Precision work (highly visual) hand 4-6 cm above elbow height
- Light work (writing, light assembly) 5-10 cm below elbow height
- Heavy work (forceful downward exertion) 20-40 cm below elbow height

### **If a job requires prolonged sitting**

- Have the proper chair-should be adjustable and provide good lumbar support
- Feet should contact the floor or use a stool
- Take breaks from sitting whenever possible
- Arrange work station so that objects used frequently are near

### **Sitting Work Surface Height**

- Precision work (highly visual) 80-110 cm above floor
- Light work (writing, light assembly) 63-76 cm above floor
- VDT work 55-75 cm above floor
- Heavy work (forceful exertion) 66-73 cm above floor

## **3. Forcefulness**

The greater the force involved in doing the task, the greater the risk. Force is increased when holding objects, using tools, wearing gloves and pinching.

Try to reduce force by letting machines hold/lift objects (vices, mechanical lifts, etc.), use power tools (instead of manual screwdrivers) and don't move rapidly or in jerking motions.

## **4. Mechanical Stress**

Mechanical stress occurs to joints and tissues when an external object (tool, machine, and desk) places pressure on the worker. This can

lead to discomfort/pain, reduced blood flow, possible nerve compression or soft tissue compression

### **If using a tool in your job**

- Lay the tool down between work cycles
- Ensure the handle fits your grip
- Have tools weighing more than 1 lb counterbalanced

## **5. Physical Stresses**

- Vibration- tool vibration can lead to RSI
- Temperature-avoid skin temperature below 70° F, overheating leads to weariness, loss of performance and increased error rate
- Vision-use task lighting to supplement overhead lighting in areas with increased visual needs, visual strain often occurs with computer operators due to screen flicker, excessive screen/environment contrast and glare from the screen
- Hearing- risk of hearing loss increases with age of the worker, length of time of exposure and intensity of noise >90 db
- Stress-physical effects of stress can include muscle tension, increased heart rate, rise in blood pressure and stomach “knots” Any kind of change in work environment can be a source of stress
- Physical conditioning helps to ward off stress

**Overtime enhances all of the above risk factors for RSI**

# Assessment of Patients for Transfers & Lifts

## **General Information**

**Assessment before starting a lift or transfer is essential.**

### **A good assessment**

- Ensures that the transfer/lift is appropriate for the caregiver and patient
- Aids in preventing back and shoulder strain/injury to the caregiver
- Reduces the risk to the patient and/or caregiver

### **An appropriate transfer/lift**

- Is safe for the caregiver and patient
- Enables the patient to be as independent as possible
- Is comfortable for the patient
- Provides the least wear and tear on the back and shoulders of the caregiver

### **Why is consistency important?**

- Unexpected incidences or lack of patient cooperation are often contributing factors in injuries to caregivers. When the lifting technique is consistent the patient is more likely to cooperate and be less anxious.

### **Who should do the assessment?**

- The nurse is responsible for assessing the patients transfer/lift needs.
- Physiotherapists and/or Occupational Therapists are available for consultation concerning complex cases. A referral may be required if intervention to improve transfers is indicated.

### **When should the initial assessment be done?**

- The admitting nurse should do the assessment of the most appropriate lift/transfer at the time of admission
- The accepted lift/transfer should be noted on the admission history and the Kardex

### **What should be included in the initial assessment?**

- Caregiver status
- Assess the patients abilities (strength, ROM, balance, etc)
- The environment
- Equipment available

### **When are lifts/transfers reassessed?**

- A brief reassessment must be done every time, before a caregiver intends to lift/transfer a patient

- Reassessment is important because a patient's ability to assist and cooperate may vary from day to day, or even at different times during the same day because of medication, fatigue, stress or pain
- Reassessment may help to prevent those unexpected incidents
- More formal reassessments are necessary when a patient's condition improves or deteriorates. This ensure the procedure listed on the kardex is most appropriate
- Reassessment also helps to maintain a high level of awareness about patient handling

**What needs to be reassessed?**

- Change in medical status
- Patients ability to communicate
- Level of cognition
- Level of aggression
- Physical Abilities (ROM, strength)
- Environment
- Availability of Equipment
- Caregiver Ability

**Risk Factors Related to Patient**

Communication	Cognition	Medical Status	Physical Status	Emotional Status
Speech	Memory	Diagnosis	Weight	Resistive
Vision	Judgement	Devices	Height	Unpredictable
Hearing	Concentration	Pain	Range of motion	Unco-operative
Understanding	Decision-making	Medication	Strength	Depressive
Language barrier		Fatigue	Balance	Aggressive
		Time of day	Co-ordination	Confused
			Tone	Agitated
			Sensation	
			Skin integrity	
Body awareness				
Depth Perception				

## **Communication**

The caregiver must assess the patient's ability or inability to communicate.

### **The risk of injury increases if the patient:**

- Does not speak/understand the same language as the caregiver
- Does not understand speech
- Does not understand non-verbal communication
- Can not follow simple commands
- Communicates with sign language or assistive communication devices
- Has a hearing impairment
- Has a speech problem
- Has a low level of consciousness

## **Cognition**

Often hospitalized patients have an altered level of cognition affecting their ability to participate in lifts/transfers. Short term memory loss, poor judgment, and difficulty making decisions can all be manifestations of altered cognition. Questions testing the short term memory can often give some indication of the level of cognition.

## **Medical Status**

Signs and symptoms of various medical conditions can impact on a patient's ability to transfer i.e. the tremors and movement initiation problems associated with Parkinson's disease. Medications can also affect the patient's ability to transfer. Fatigue, pain and stiffness will affect the quality of the transfer. The medical status can change dramatically during a shift and caregivers need to observe these changes and modify the lift/transfer as necessary.

## **Physical Status**

A physical assessment should include:

- Weight bearing status
- Weight
- Height
- Range of motion (ROM)
- Strength
- Balance
- Coordination
- Sensation
- Clothing
- Footwear

### **Emotional and Behavioral Status**

Patients behavioral and emotional state may change throughout the day i.e. Sundowners. The caregiver should be aware of behavior changes including:

- Anxiety
- Aggression
- Agitation
- Combativeness
- Confusion
- Depression
- Hostility
- Impulsiveness
- Low tolerance for change
- Low self esteem (if they think poorly of their abilities they may not complete the transfer to the level of their ability)
- Rejection
- Resistive
- Self Destructive
- Unpredictable


### **Risk Factors Related to the Environment**

- Layout
- Space
- Lighting
- Color
- Temperature
- Obstacles
- Floor

### **Risk Factors related to the Equipment**

- Medical devices (catheter bags, IV's, prosthesis)
- Inadequate training in the use of equipment
- Improper use of equipment or use of faulty equipment
- Risk increases when furniture/equipment not adjustable

### Risk Factors Related to the Caregiver

	<b>Attitude Approach</b>	
<b>Skills Knowledge Experience Height Size relative to client Vision Hearing</b>		<b>Time of day Time pressures Shift work Fatigue Frequency of lifting Number of caregivers</b>
	<b>Wellness Fitness Strength</b>	



# Patient Lifts & Transfers

## **Repositioning, Lifts and Transfers**

The admitting nurse should do assessment of the most appropriate lift/transfer at time of admission. The accepted lift/transfer should be marked on the kardex.

Repositioning is the act of changing the patient's position in bed or chair. These include turning the patient in bed, moving the patient up/down the bed, moving patient from supine to sitting, repositioning in the chair, and assisting the patient from floor to chair.

Transfers are a procedure to assist a patient who can bear weight through one leg or both arms move from one surface to another. These include the standing pivot (1 and 2 man), the 2 person side by side, the early/modified hemi and the towel transfer. Transfer belts, sliding boards and gait aids can be used to assist with transfers. Transfers can be assisted, supervised and unsupervised.

Lifts are a procedure to lift/carry the entire weight of a person/object from one surface to another. It is appropriate for a patient who is unable to bear weight and/or mentally unable to help with the procedure. Lifts can be done manually or with a mechanical lift. Examples of manual lifts include the front and back lift and the side by side lift. These should be used after great consideration or in an emergent situation when a mechanical lift is unavailable. Mechanical lifts include portable and ceiling track lifts, and stand assist lifts.

### **Preparing for the lift/transfer**

#### **1. Prepare the equipment**

- Adjust position of the equipment (bed, stretcher, wheelchair, etc)
- Adjustments to the chair include locking brakes, checking cushion position (if available), removing arm rests if necessary for transfer/lift, positioning chair at appropriate angle
- Adjustments to the bed include locking brakes, putting down side rails, adjusting bed height (hip height if standing, mid thigh height if knee on bed, level with chair if using sliding board or hemi transfer)
- Ensure all devices are in good working order including belts, lifts, slings

#### **2. Prepare the patient**

- Explain what you are about to do with the patient
- A well-prepared patient can make your workload easier!
- Ensure the patient places their hands on the appropriate place to assist with the lift i.e. the side rail. **DO NOT ALLOW THE PATIENT**

TO GRAB AROUND THE CAREGIVERS NECK. This could lead to neck injury or strain.

- Position the IV tubing/poles, catheter bags and other appliances so that they do not interfere with the transfer
- Maintain the patient's dignity

### **3. Prepare the Caregiver**

- Complete a brief reassessment to ensure appropriate lift
- Position the caregiver so the patient feels safe, the patient can hear and see the caregiver, and with appropriate body mechanics (the feet apart and knees bent slightly)
- Discuss the plan with lifting partners
- Explain the plan to the patient including their role in the transfer/lift
- Use simple instructions/one step commands
- Tighten abdominal muscles (core) before you lift. Maintain normal spinal alignment by keeping a slight inward curve just above the pelvis. Use the powerful leg muscles to help with the handling procedure
- Use both hands and hold the patient as close to your body as possible. Never grasp the patient under the arms. This can lead to injury or subluxation
- Count with lifting partners so everyone moves at same time "1,2,3,lift"
- Be prepared for the unexpected.
- If the load starts to slip or the patient starts to fall, go with it. Try not to rotate. Protect the patient's head
- If the patient falls assess their condition before returning them to bed
- Postpone the lift/transfer if the patient is resistive, uncooperative or aggressive (if non emergent)
- Move the whole body in the direction of the transfer by stepping or pivoting. Avoid rotating or twisting the spine or positioning the shoulder in a compromised position
- Transfer the patient the shortest distance possible
- After lifting do 5-6 spinal extension exercise (see exercise section)

### **4. The Environment**

- Clear a working area
- Eliminate any obstacles
- Ensure adequate lighting
- Dry floor
- Minimize distracting noises

## Procedures

The following are accepted repositioning techniques, lifts and transfers for Grey Bruce Health Services. Determine the appropriate handling technique for your patient, the situation, the environment and the caregiver.

### Moving the Patient who has fallen to the Floor

The procedure below will assist the caregivers in developing a plan for assisting a patient who has fallen to the floor.

1. Assess the patient's condition
2. If there are no neurological or physical problems, and the patient is conscious and able to weight bear, you may instruct the patient to:
  - Relax and let them know you will help him get up
  - Roll onto his stomach
  - Once on his stomach, have him get into a crawling position and crawl to the closest chair.
  - Have the patient face the chair on his knees, placing his hand on the seat
  - Have the patient bend his stronger knee and place his foot flat on the floor
  - Support the patient as he slowly stands up by pushing with his leg. Remember to use proper body mechanics when supporting a patient
  - Have him pivot and then sit in the chair
  - Once the patient is safely in the chair, allow him to compose himself before you transfer him back to the bed

**Note: Depending on the patient's weight and ability, you may wish to seek the assistance of a colleague.**

3. If the patient is unconscious, or unable to weight bear, a **mechanical lift** should be used.
4. If the patient has a neurological or physical problem, resulting from the fall, treat the injury before attempting to move the patient.

## Moving Patient to the Side of the Bed

### Caregiver's Position

- Both caregivers stand on the side of the bed to which the patient is to be moved
- Use a wide walk stance or place one knee up on the bed
- Take hold of the draw sheet if available or place arms and hands well under patients shoulder-waist and waist-hips if a draw sheet is not available
- Lean upper body well over patient

### Patient's Position

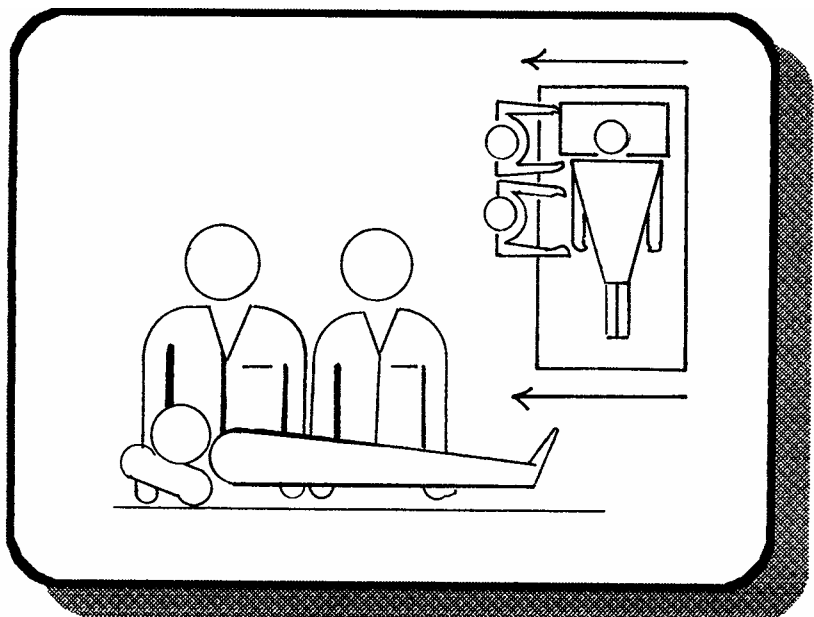
- Tuck chin on chest

### Environment/Equipment

- Ensure brakes are on the bed
- Adjust the bed height
- Lower the rails and head of bed if patient condition allows

### Action

- On the count, caregivers shift body weight from front leg/knee to back leg, moving the patient toward them



**MOVING PATIENTS TO SIDE OF BED**

## Moving Patient Up or Down the Bed

### Caregiver's Position:

- Facing the direction of the move, the caregivers stand on opposite or same side of the bed, using a wide walk stance or placing knee on the bed
- Position of caregiver's hands: caregivers grasp both ends of the draw sheet (placed under the patient from hips to shoulder) and holds as close to the patient as possible
- If a draw sheet is not available and caregivers are on opposite sides, one supports under shoulder - waist and the other under waist-hips, or both can hold under shoulders and hips. If on same side, both support under shoulder-waist and waist-hips

### Patient's Position:

- Tuck chin on chest
- Bend knees when moving up the bed

### Environment/Equipment:

- Ensure brakes are on the bed
- Adjust the bed height
- Lower the rails and head of bed if patient condition allows
- Place pillow against head board when moving up the bed

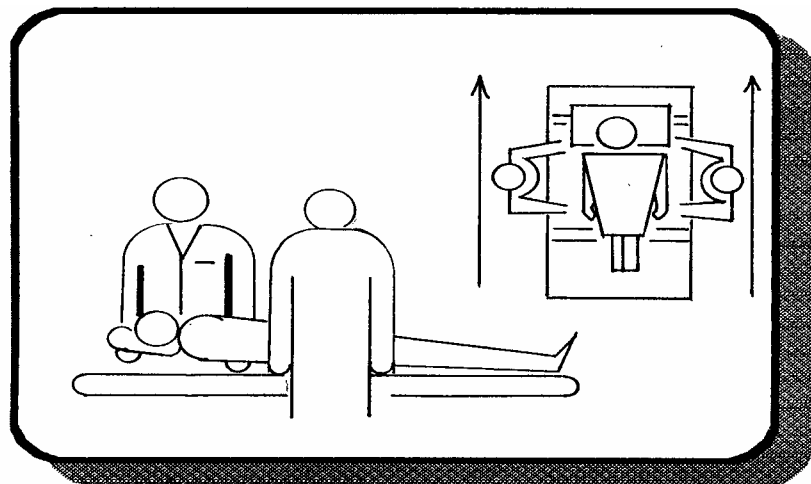
### Action

#### To move patient up the bed:

- On the count, instruct the patient to push with legs, operator shifts weight from back foot/knee to front foot

#### To move patient down the bed:

- On the count, the operator shifts weight from back foot/knee to front foot



**MOVING PATIENTS UP OR DOWN THE BED**

## Turning Patient onto his Side

### Caregiver Position:

- Lifters stand on the same side of the bed
- Stand directly facing the bed as close as possible to the bed with bent knees and hips, with weight on the front foot
- Position of caregiver's hands: caregivers grasp both ends of the draw sheet (placed under the patient from hips to shoulder) on the far side of the patient and holds as close to the patient as possible
- If a draw sheet is not available and caregivers are on opposite sides, one supports under shoulder - waist and the other under waist-hips, or both can hold under shoulders and hips. If on same side, both support under shoulder-waist and waist-hips

### Patient Position:

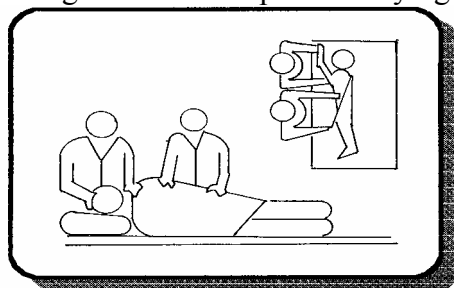
- Be sure patient is positioned in bed so that feet are not touching foot of bed
- Position the patient close to the edge of the bed (appropriate procedure). If the patient is unable to move the arm nearest to you up and away from his body, assist him. Have him place the other arm across the abdomen if able. Both arms can be crossed across the chest. Assist as necessary
- Instruct the patient to bend his knees up or to cross the farthest leg over the near one if able. Assist as necessary

### Environment/Equipment:

- Ensure brakes are on the bed
- Adjust the bed height
- Lower the rails and head of bed if patient condition allows
- Place pillow against head board when moving up the bed

### Action:

- Both persons grasp the turning sheet at the patients shoulders and buttocks and on the command "1, 2, 3, turn," gently roll the patient on to his side by transferring weight to the back foot. If a draw sheet is not available use the hand position as described above. Support patients back with pillow if necessary. Flex the leg on which the patient is lying.



TURNING PATIENT ONTO SIDE WITH TURNING SHEET

## Supine to Sitting (One Person Assist)

**If at all possible have the patient roll onto his side and push up into sitting!**

### Caregiver Position

- Stand facing the patient
- Once the patient is on his side, reach across the patient's top leg and grasp the bottom leg.
- Place the other arm under the patient's shoulders, supporting his head and shoulders.

### Patient Position

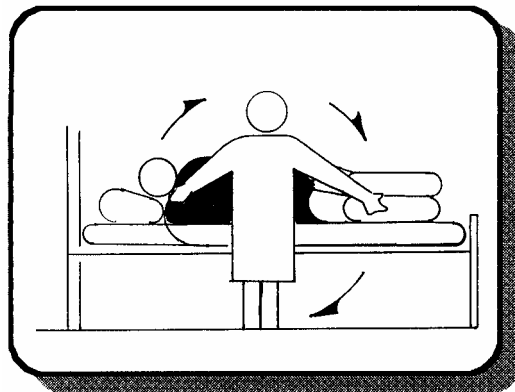
- Have the patient roll onto his side if able. Provide assistance as necessary.
- Instruct the patient to flex/bend his hips and knees. If he is able have him move his heels over the edge of the bed and raise himself up on his bottom elbow, pushing up with the other hand

### Environment/Equipment

- Ensure brakes are on the bed
- Adjust the bed height
- Lower the rails and head of bed if patient condition allows

### Action:

- Encourage independence of the patient
- If necessary assist the patient. Shift your weight from front to back leg, lower the patient's legs over the edge of the bed and at the same time bring his head and shoulders to an upright position. Do not pull on the patient's neck.



\_\_\_ ONE PERSON ASSIST

## Sit to Stand

### **If at all possible have the patient sit to stand with minimal assistance from the caregiver!**

#### **Caregiver Position**

- Facing the patient
- You can block the patients weaker leg by placing your feet on either side of the patients feet and using your knees to support the weaker leg, if necessary
- Place your hands around the patient's waist or under the buttocks. A transfer belt can be helpful to provide handholds.

#### **Patient Position**

- Ensure the patient's feet are flat on the floor
- Have him move to the edge of the bed. If unable to do this independently assist him to wiggle to the edge of the bed by "bum walking"
- Position knees at 80°-90° angle as able. Hips higher than knees makes it easier to stand
- Have the patient lean forward "nose over toes". He can hold onto a piece of equipment, the caregiver's forearms or hips. **Never around the caregiver's neck.**

#### **Environment/Equipment**

- Ensure brakes are on the bed or chair
- Adjust the bed height so patients feet are on the floor
- Lower the rails of the bed
- If using a transfer belt apply it securely to the patient above his pelvis

#### **Action**

- Assist the patient to straighten knees and hips by providing a forward and upward pressure on his sacrum/pelvis
- The knees can be blocked/supported as necessary
- Ensure the patient is steady before letting go.



## **Repositioning a Patient in a Chair/Geri Chair**

### **Caregiver position**

- Stand in front of the patient in the chair with knees and hips flexed
- Brace knees up against patients legs
- Place hands on patients sacrum

### **Patient position**

- Have the patient bend his knees with feet on the floor and slightly apart
- Have the patient lean forward slightly to unweight the buttocks

### **Environment/Equipment**

- Lock the brakes on the chair
- Position wheel so they will not pivot
- Remove seatbelt or tray if present

### **Action**

- Encourage the patient to “bum walk” back in the chair.
- Assist as necessary by raising one side of the sacrum and then the other.
- Apply gentle pressure to the patients legs to assist in shifting them backward

### **One-Man Standing Pivot (one person)**

- Patient assists by full or partial weight bearing.
- Physical assistance required is minimal and is provided by one caregiver.

### **Caregiver's Position**

- Caregiver stands in a walk stance position with knees slightly flexed and toes pointing toward the chair. Keeping a slight hollow in the back, lean forward and place hands behind patient's lower back
- You can block the patients weaker leg by placing your feet on either side of the patients feet and using your knees to support the weaker leg, if necessary
- Place your hands around the patient's waist or under the buttocks. A transfer belt can be helpful to provide handholds.

### **Patient's Position**

- Patient sits on side of bed, close to the edge, with feet in contact with the floor, toes pointing away from the chair.
- Have the patient lean "nose over toes" The patient can place his hands on the side rail/armrest or the caregivers waist or forearms.  
**Do not place hands around caregivers neck.**

### **Environment/Equipment**

- Position wheelchair at a 30 degree angle to the side of the bed
- Chair should be positioned so that patient can move toward his/her stronger side
- Remove the foot rest and arm rest nearest to the patient, if possible
- Put brakes on
- Adjust height of bed so it is level with chair
- A transfer belt may be helpful in offering hand holds

### **Action**

- Patient stands at side of bed (with assistance as necessary)
- Caregiver assists patient to swing hips around to the chair as necessary
- Patient places hands on arm of chair and lowers himself into it
- As patient sits, caregiver either releases grasp on patient or flexes knees to lower himself with the patient. (This depends on amount of assistance required for controlled sitting)



### **One-Man Standing Pivot (two person)**

Patient assists by full or partial weight bearing. Physical assistance required is minimal and is provided by two caregivers.

#### **Caregiver's Position**

- The leader stands in a walk stance position with knees slightly flexed and toes pointing toward the chair. Keeping a slight hollow in the back, lean forward and place hands behind patient's lower back
- You can block the patients weaker leg by placing your feet on either side of the patients feet and using your knees to support the weaker leg, if necessary
- Place your hands around the patient's waist or under the buttocks. A transfer belt can be helpful to provide handholds.
- The assistant stands between the chair and the bed

#### **Patient's Position**

- Patient sits on side of the bed, close to the edge, with feet in contact with the floor, toes pointing away from the chair.
- Have the patient lean "nose over toes" The patient can place his hands on the side rail/armrest or the caregivers waist or forearms.  
**Do not place hands around caregivers neck**

#### **Environment/Equipment**

- Position wheelchair at a 30 degree angle to the side of the bed
- Chair should be positioned so that patient can move toward his/her stronger side
- Remove the foot rest and arm rest nearest to the patient, if possible

- Put brakes on
- Adjust height of bed so it is level with chair
- A transfer belt may be helpful in offering hand holds

**Action**

- Patient stands at side of bed (with assistance as necessary by the 2 caregivers)
- Caregivers assist patient to swing hips around to the chair as necessary
- Patient places hands on arm of chair and lowers himself into it
- As patient sits, the caregivers either releases grasp on patient or flexes knees to lower himself with the patient. (This depends on amount of assistance required for controlled sitting)



## Two Person Side-By-Side Transfers

### Caregiver's Position

- Sit or squat beside patient
- The patients foot can be supported by your foot, if necessary
- Place the hand closest to the patient under his forearm and grasp gently above the wrist. This hand can hold the transfer belt if using one
- Hold the patients other hand holding the palms up

### Patient's Position

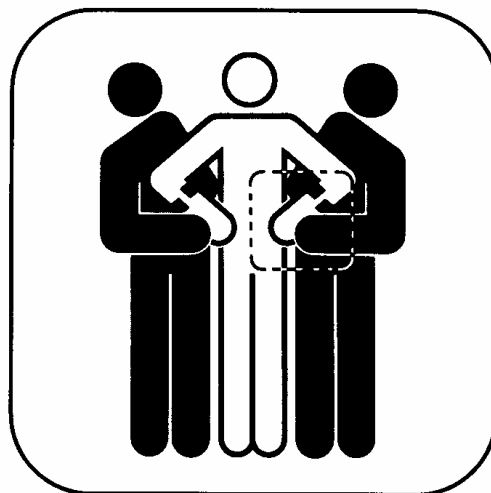
- Sitting on the edge of the bed
- Feet flat on the floor
- Lean forward "nose over toes"

### Environment/Equipment

- Position wheelchair at a 30 degree angle to the side of the bed
- Chair should be positioned so that patient can move toward his/her stronger side
- Remove the foot rest and arm rest nearest to the patient, if possible
- Put brakes on
- Adjust height of bed so it is level with chair
- A transfer belt may be helpful in offering hand holds
- A walker may be used to allow the patient to assist more

### Action

- The patient pushes into the caregivers palm and stands up
- Walk to the chair
- Slowly lower to chair



## **Hemi Transfer**

The Early and Modified Hemi Transfers are techniques for transferring a patient from a wheelchair to bed/chair or vice versa.

### **Advantages of the Early & Modified Hemi Transfer**

- Reduces risk of back injury in staff
- Eliminates possibility of shoulder injury in the hemiplegic patient
- Usually requires only one staff member
- Facilitates recovery by allowing some patient participation

### **Early Procedure**

#### **Caregiver position**

- Sit on a stool (or chair without arms) facing the patient or assume a bent knee position
- If necessary, stabilize the patient's knees by placing his/her knees between the caregivers legs
- Place your hands in the hollow of the patient's back, around his waist, or under his buttocks. Where you feel you can establish the best grip on your patient. Consider his size, body make-up, etc.

#### **Patient Position**

- The patient sits towards the edge of the wheelchair (or bed) until his feet establish firm contact with the floor. Assist as necessary to the edge of the bed. Downward pressure on patient's knees with your hands can assist foot contact
- Position the patient's feet so that his heels point toward the direction of the move. Assist as necessary
- Ask/assist the patient to arch (i.e. hollow) his/her back, and to look ahead, lean forward and place his chin next to your shoulder.
- If the patient is unable to assist with either arm, place the patient's arms in his lap. If the patient is able to assist with both arms, have him grip your waist. For the hemiplegic patient enclose his affected arm with yours, but leave his non-affected arm to the outside of yours.

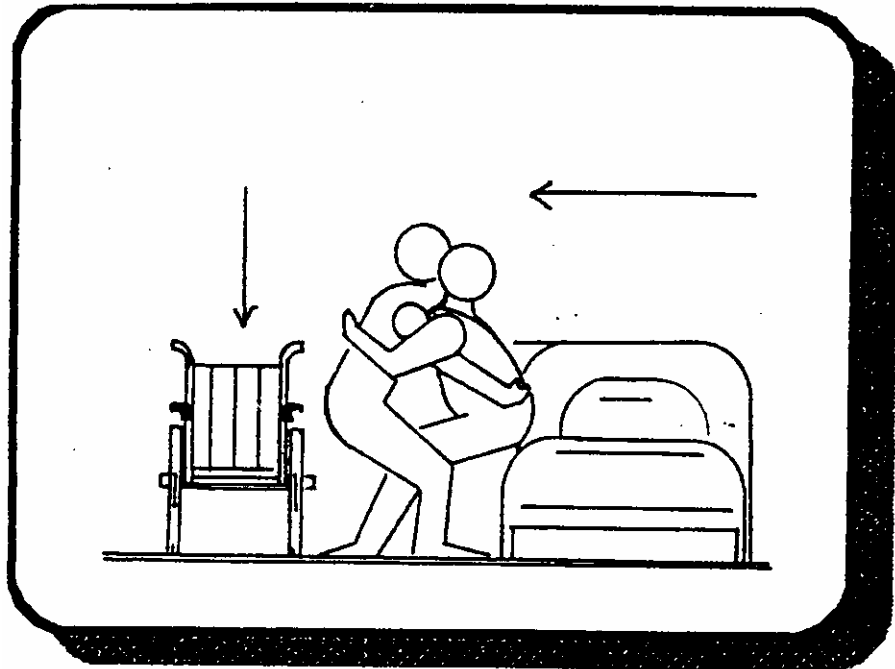
#### **Equipment/Environment**

- Position the wheelchair at a 30-degree angle to the bed and lock brakes. Remove or wing the foot rests up and away
- Remove the armrest, on the appropriate side, e.g., the side closest to the bed
- Lower the bed so that it matches the height of the wheelchair seat as nearly as possible

**Action**

Note: for a hemiplegic patient, it is often easiest to perform the transfer toward the non-affected side

- Both patient and lifter remain in a sitting posture during the transfer.
- Signal to the patient e.g. “1, 2, 3, lift” or “1, 2, 3, over.”
- Transfer the patient by raising his buttocks slightly upward and then laterally so that his buttocks come to rest on the bed (or wheelchair)



### **Modified Hemi Transfer**

This transfer is a progression of the Early Hemi that allows the patient more independence as his/her condition improves

#### **Caregiver Position**

- The care giver is positioned as for the early hemi transfer
- The degree that the care giver stabilizes the patient's knees or supports the patient's hips will depend on the amount of assistance required

#### **Patient Position**

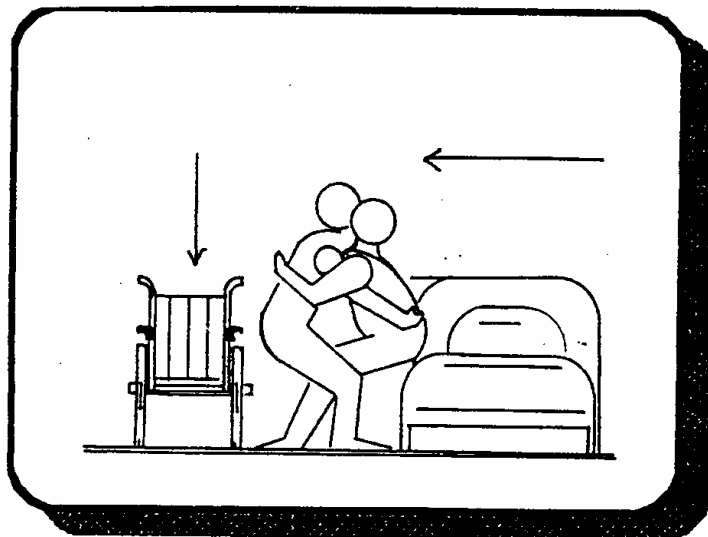
- The patient attempts to assume a more erect standing posture, and reaches for the bed or the furthest arm of the wheelchair. The patient does not hold on to the care giver's waist

#### **Environment/Equipment**

- As for early hemi transfer

#### **Action**

- The caregiver assists the patient to the bed/chair with assistance as necessary



### **Towel Transfer “Lyndhurst Lift”**

Used for maximally dependent patients for bed to chair transfers. Can involve one or two assistants. Not to be used when the patient is significantly taller than the staff person.

#### **Caregiver Position**

- Stand in front of the patient
- Position the patient’s head and shoulder under your arm against your hip by helping them to lean forward at the waist. (The patient should now be facing away from the bed)
- Lean over the patient’s back to position the towel or draw sheet under the patient’s hips
- Stabilize the patient’s knees by placing his knees between the caregiver’s legs
- Lean over the patient’s back and grasp each end of the towel close to the patient’s hips

#### **Patient Position**

- The patient should sit near the edge of the bed/chair with feet firmly on the floor
- Have the patient position feet so that his/her toes point away from the bed. Assist as necessary
- His arms can be positioned around your waist or in his lap

#### **Environment/Equipment**

- Position the wheelchair at a 30-degree angle to the bed. Lock brakes.
- Remove or swing the footrests away
- Remove the arm rest closest to the bed
- Lower the bed so that it matches the height of the wheelchair seat

#### **Action**

- Signal to the patient e.g. “1,2,3..lift”
- Transfer the patient by raising the buttocks slightly up and then laterally so that his buttocks come to rest on the bed (or wheelchair). This should be done by a rocking motion of the caregiver’s body over her feet, not by lifting with the arms
- If a second person is helping, she should be beside the patient guiding/lifting the buttocks.



## Transfer/Sliding Boards

Vary in material, size, weight and design. They are used primarily for patients unable to bear weight, due to spinal cord injury and their use requires good upper extremity strength. The amount of assistance required varies from patient to patient and is usually to help with control of the patient's trunk while he/she performs the pushes his/her body along the board. They are of minimal help for commode/toilet transfers.

### Caregiver Position

- Stand facing the patient

### Patient Position

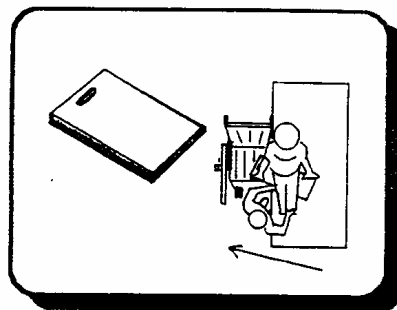
- Sitting on the edge of the bed
- Feet on the floor and heels pointing in the direction of movement
- It is easier if the patient is wearing appropriate clothing that enhance sliding
- Ensure the patient does not place his fingers under the end of the board because as he shifts his weight the fingers will get pinched/stuck under the board

### Environment/Equipment

- Try to make the two surfaces between the sliding board similar height
- If using a wheelchair ensure brakes are on and the arm rest and foot rest on the appropriate side are removed
- Slide end of board under the patient's hips
- Place the other end of the board on the seat of the destination (chair/bed) ensuring it is half way covering seat
- A towel can be placed under the buttocks and used to assist the patient slide along

### Action

- Encourage the patient to use his arms to slide himself along the surface of the board
- Provide assistance as necessary
- Remove the board once patient safely in chair



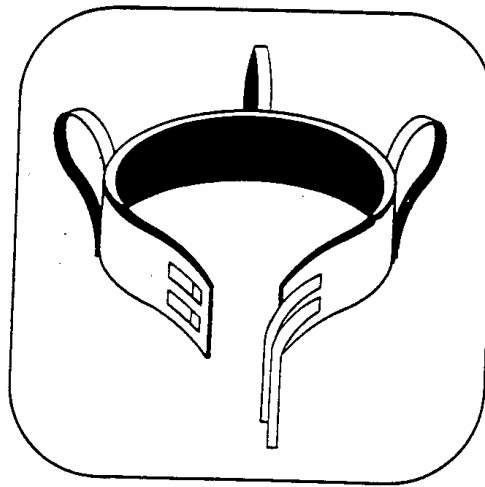
TRANSFER BOARD

## Transfer Belts

Wide adjustable cloth belts that are usually adjusted by buckles or Velcro fasteners. They are especially helpful when the patient requiring assistance is wearing only a hospital gown and a more secure handhold is needed. They should be snug but not tight and never used to completely lift the patient's body weight.

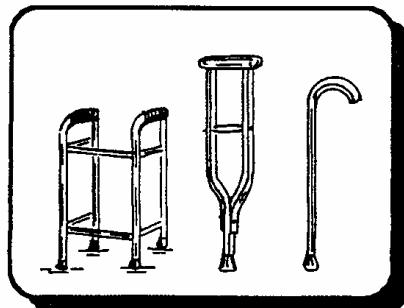
### Procedure

- Fasten belt at waist
- Grasp belt at the back with both hands
- Proceed with appropriate transfer



## Gait Aids

Include walkers (wheeled or standard), canes, crutches, etc. The actual method of transfer will vary depending on the gait aid and patient. Generally, the staff person should assist the patient's weaker side. The patient uses the gait aid to assist with weight bearing throughout the transfer.



## **Note - To be used with CAUTION**

### **To be used in situations where a mechanical lift is unavailable and the situation is emergent**

#### **Front and Back Lift**

This lift may be appropriate to move a lightweight patient who is unable to bear weight through his legs or assist with his arms. It is essential that the wheelchair used has removable arms and leg rests. The taller caregiver should support the upper body of the patient and be the leader.

#### **Caregiver Position**

- The leader positions herself behind and close to the patient with knee closest to the bed, on the bed
- The leader grips the patient using a through-arm grip, grasping the patient's forearms
- The second person places one knee on the bed. She supports the patient's legs with one arm under the patient's thigh and the other under the lower leg. Hold the patient's legs close to your body
- The lifters ensure that the patient is safe, well supported and comfortable

#### **Patient Position**

- Have the person sit up in bed, cross his arms on his chest and lean forward slightly. Provide assistance as necessary

#### **Environment/Equipment**

- Prepare the wheelchair by removing arm and leg rests
- Place the wheelchair close and parallel to the bed, level with patient's hip and lock all wheels
- Adjust bed height to be slightly higher than the wheel of the chair

#### **Action**

- The leader gives the command "1,2,3, lift", and together they shift the person close to the edge of the bed
- The leader assumes a lunge position and the assistant assumes the squat position
- The leader repeats the command and together they lift the patient into the chair counting, "1,2,3 down"



## **To be used with caution when mechanical lift is unavailable and situation is emergent**

### **Side by Side lift (2 person lift)**

#### **Caregiver Position**

- Sit beside the patient on the bed

#### **Patient Position**

- Have patient sit on edge of bed. Assist as necessary
- Instruct the patient to put his arms across the caregiver's shoulders. If he unable to do this, have him fold his arms in his lap.

#### **Environment/Equipment**

- Position wheelchair parallel to bed and approximately 1 meter away
- Apply brakes to chair
- If there is a transfer belt available it makes the transfer easier
- Place a towel underneath the patients thigh

#### **Action**

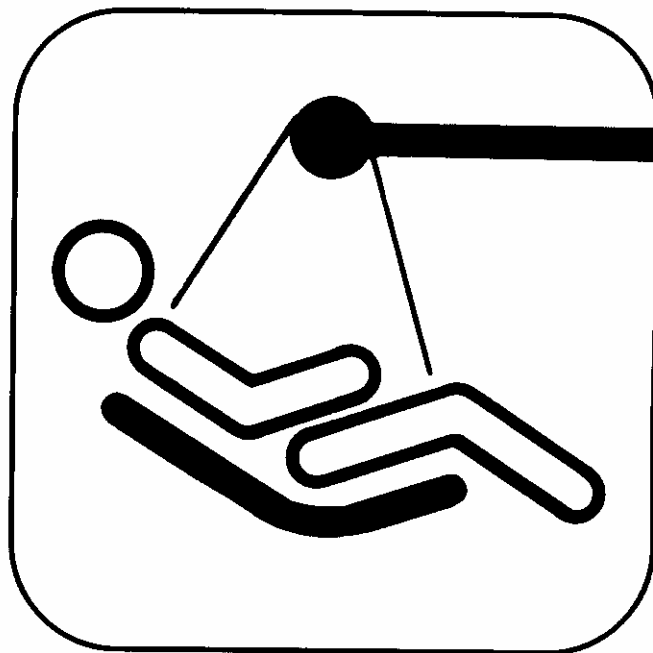
- Grip the back handle of the transfer belt if available or grab your partners forearm/wrist
- Grip the closest end of the towel or if not using a towel your partners wrist
- Together lift the patient after a "1,2,3, lift"
- Walk in step to the wheelchair with the patient's back facing the seat of the chair
- Together lower the patient after a "1,2,3, down"

## Mechanical Lifts

The use of mechanical lifting devices is recommended by GBHS for lifting all patients. It is recommended to use the mechanical lifts over the Front and Back and Side by Side lift (manual lifts). Mechanical lifting devices decrease the risk of injury by eliminating/reducing forceful movements, awkward postures and repetitive motions associated with manual lifting.

Please use the decision tree to decide when the use of the lift is most appropriate

Instructions for using the mechanical lift are contained on the lift.



A listing of mechanical lift location is in this manual (Appendix A)

# Appendix

## Appendix A

### Listing of Mechanical Lift Locations

Site	Department	Type of Lifting Device	Weight Capacity
<b>Meaford</b>	Nursing	Arjo Aliti chair lift	350 lbs with scale
		Golvo Lift	
		Arjo tub lifts	
		BHM-Ergo Lift	600 lbs with scale
		BHM Medilifter	500 lbs with scale
<b>Markdale</b>	Nursing	BHM Ergo Lift 600	600 lbs with scale
		BHM Medi-SSL sit to stand	
		Techlem surgilift (1)	
		Arjo Marissa	
		Medanaids Ambulift tub chair	
<b>Southampton</b>	Nursing	Hoyer lift	
		BHM Medilifter 4	500 lbs with scale
		Arjo tub lift	
<b>Warton</b>	Nursing	Arjo Sara Lift	400 lbs
		Arjo Lift	
		BHM Medilifter 4	500 lbs with scale
<b>Lion's Head</b>	Nursing	Arjo Sara Lift	400 lbs
		Arjo Marissa	400 lbs
		Arjo Calypso tub chair	
<b>Owen Sound</b>	4-6	Arjo Maximove	350 lbs
		BHM Medilifter 4	500 lbs with scale
		Arjo Lift	420 lbs
	Critical Care	BHM Ergo Lift	600 lbs with scale
		Arjo-Maxi	350 lbs
	PACU	Techlem surgilifts (3)	400 lbs
	OR	Techlem surgilifts (6)	400 lbs
	4-1	BHM Medilifter 4	500 lbs with scale
		BHM Ceiling lifts V3 and V4 (5)	? weight with scale
		Arjo Bolero tub chair	
	6 <sup>th</sup> floor	BHM Summit	400 lbs with scale
		Medi SSL sit to stand	
		V3 & V4 ceiling lifts (4)	With scales
Morgue	Ceiling lift	With scale	

