

BODY MECHANICS: POSITIONING, MOVING AND TRANSFERS



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Body mechanics involves standing and moving one's body correctly as well as making the best use of one's strength to prevent injury. When you learn how to control and balance your body, you can safely move another person. When lifting something heavy or someone, the proper body mechanics will help you prevent back injuries.

General Rules

1. Never lift more than you can comfortably handle
2. Create a base of support first. Stand with your feet at shoulder width apart and place one foot a half-step ahead of the other

Proper Foot Position



3. **DO NOT** use your back to do the heavy lifting. The back muscles are not your strongest muscles. **USE YOUR LEGS**
4. If the bed is low, place one foot on a footstool. This will relieve the pressure on your lower back
5. Consider getting a back support belt to protect your back

BODY MECHANICS FOR THE CAREGIVER

Helpful Advice for Moving a Person

These pointers are for the caregiver only. See the following pages for the steps for a specific move or transfer.

Step 1

- Tell the person what you are going to do
- Before you start to move the person, count “1-2-3” with him



Step 2

- Stand close to the person you are lifting
- While lifting, keep your back in a neutral position. This means that your back should be arched normally and not stiff
- Keep your knees bent, with equal weight placed on both feet. Tighten your stomach and back muscles to maintain a correct support position
- Use your arms to support the person
- Again, use your leg muscles as you lift the person



Step 3

- When you turn, pivot your body by turning on one foot. Do not twist your body
- Breathe deeply
- Keep your shoulders relaxed but not hunched
- If you need a lot of effort to move the person, tie a transfer belt around the person's waist. Hold the belt as you do the transfer



Prevention of Back and Neck Injuries

To avoid injury, get plenty of rest and make sure you have:

1. Good nutrition
2. Good physical fitness
3. Good body mechanics

Common Treatments for Caregiver Back Pain

If you experience back pain:

1. Apply a cold ice pack to the injured area every hour for 10 minutes each time
2. Get short periods of rest and lie in a comfortable position
3. Stand with your feet shoulder width apart. Place your hands on hips and bend backwards slowly. Do 3 to 5 repetitions several times a day
4. Take short, frequent walks on a flat and level surface
5. Do not sit, stand or lie in the same position for long periods.
It is bad for your back

Caregivers should seek training from a professional physiotherapist. A physiotherapist can advise you on how to provide this type of care and how to reduce the risk of injury to yourself or the person in your care (care recipient). The physiotherapist will correct any mistakes you make and can identify special problems, if any. To determine the best procedures, the physiotherapist can examine the physical condition of the care recipient, as well as the furniture and room arrangements in the home.



Tip

Under the Caregivers Training Grant, you can tap on an annual training grant of \$200 for every dependent under your care. You can use this grant to attend training programmes that have been pre-approved by the Centre for Enabled Living (CEL). For more information, please visit Singapore Silver Pages at <http://silverpages.sg>.

MOVING A PERSON

When you have to move someone into bed or out of bed, remember these tips:

1. Plan the move and be aware of what you can and cannot do
2. Let the care recipient do as much work as he can
3. Do not let the person put his arms around your neck or grab you
4. Use a transfer belt to balance and support the person
5. Keep the transfer surfaces e.g. wheelchair and bed as close together as possible
6. Check the wheelchair position and lock the brakes, keep the armrests and footrests swung out of the way
7. Let the person look to the place where he is being transferred
8. If the person is able, place his hands on the bed or chair and assist in the movement. If the person has had a stroke or is afraid, he can hold his hands close to his chest
9. Ask the person to push and not pull on the bed rails, the chair, or you
10. Work at the person's level and speed. Check if he feels pain
11. Avoid sudden jerking motions
12. Never pull on the person's arms or shoulders
13. Position the person correctly. This helps the body regain lost function and helps prevent additional function loss
14. Get the person to wear non-slip shoes

NOTE: Encourage the care recipient to be as independent as possible. Do not do everything for him, let the person help. For example, it's all right for him to stand up partly and sit back down.

MOVING A PERSON

Positioning a Person in Bed

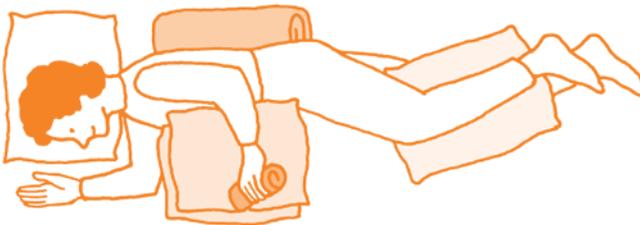
Step 1

- Place a small pillow under the person's head
- Place a small pillow lengthwise under the calf of the weak leg. Let the heel hang off the end of the pillow to relieve pressure. If the person needs a blanket, make sure the blanket does not create pressure on the toes



Step 2

- Fold a bath towel and place it under the hip of the person's weak side
- Place the weak arm and elbow on a pillow. The position of the arm should be higher than the heart



MOVING A PERSON

Positioning a Person on His Strong Side

1. Place a small pillow under the person's head
2. Keep the person's head in alignment with the spine
3. Place a pillow at the back to prevent rolling
4. Place a pillow in front to keep the arm at the same height as the shoulder joint
5. Place a medium pillow lengthwise between the knees, legs and ankles. The person's knees may be kept slightly bent

Positioning a Person on His Weak Side

1. Use the same positioning as described above
2. Change the person's position frequently. He may not be aware of pressure, pain or skin irritation

Moving a person in bed can injure him or the caregiver unless you follow these basic rules:

- Never grab or pull the person's arm or leg
- If it doesn't affect the person's medical condition, raise the foot of the bed slightly to prevent him from sliding down
- If moving him is difficult, get the person out of bed and back in the wheelchair. Then start over and put him in bed closer to the headboard

Moving a Person up in Bed

1. Tell the person what you are going to do
2. Lower the head of the bed to a flat position and remove the pillow. Do not try to drag the person up
3. If possible, raise the bed and lock the wheels
4. Tell the person to bend his knees, place his feet firmly against the mattress and push himself up
5. Stand beside the bed and place one hand behind the person's back and the other underneath the buttocks
6. Bend your knees and keep your back in a neutral (arched naturally, not stiff) position
7. Count "1-2-3" and get the person to push with his feet and pull with his hands toward the head of the bed
8. Replace the pillow under his head

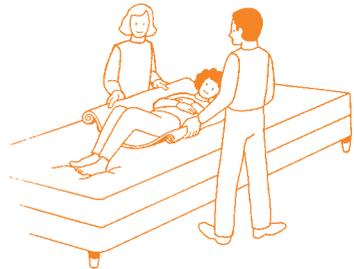
When Two People Move an Unconscious Person

Step 1

- Tell the person what you are going to do even if he seems to be unconscious
- Remove the pillow
- If possible, raise the bed and lock the wheels

Step 2

- Stand on either side of the bed
- Stand at the side of the bed, with feet shoulder width apart, knees bent, and back in a neutral position
- Roll the sides of the draw sheet up to the person's body



MOVING A PERSON

Step 3

- Hold on to the draw sheet with your palms facing up
- Count “1-2-3” before shifting your body weight from the back to the front leg. Keep your arms and back in a locked position. Together, slide the person smoothly up the bed
- Place pillows under the person’s head
- Ensure the person is in a comfortable position



NOTE: A drawsheet is a sheet that is folded several times and placed under the person to be moved. It helps prevent skin irritation and should be placed under the shoulders to just below the knees.

Moving an Unconscious Person Alone

1. If possible, raise the entire bed to a comfortable level and lock the wheels
2. Remove the pillow
3. Stand at the side of the bed, with feet shoulder width apart, knees bent, back in a neutral (arched naturally, not stiff) position
4. Roll the sides of the draw sheet up to the person’s body
5. Slide your arms under the draw sheet and support the person’s shoulders and back
6. Count “1-2-3” and shift your body weight from one leg to another leg as you slide the person towards the top of the bed. Keep your arms and back in a locked position
7. Slide the person to the top of the bed
8. Replace the pillow
9. Position the person comfortably

Tip

To prevent back injuries, get the person to hold a grab bar to help with the move. This is easiest and safest for the caregiver’s back.

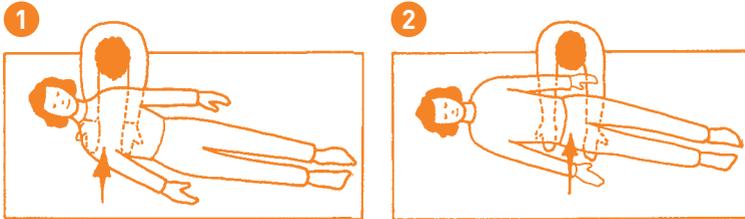
Moving a Person to One Side of the Bed on His Back

Step 1

- Place your feet shoulder width apart, knees bent, back in a neutral (arched naturally, not stiff) position
- Slide your arms under the person's back to his far shoulder blade. Bend your knees and hips to lower yourself to the person's level
- Slide the person's shoulders towards you by shifting your weight to your back foot

Step 2

- Use the same procedure to move the person's buttocks and feet
- Always keep your knees bent and your back in a neutral position



Moving the person

Rolling Technique

1. Move the person to one side of the bed as described before
2. Bend the person's knees
3. Hold the person at his hip and shoulder blade on the far side of the body
4. Keep knees bent, back in neutral position and lock your arms to assist the lift
5. Adjust the pillow

MOVING A PERSON

Raising a Person's Head and Shoulders

1. If possible, ask the person to lift his head and dig both elbows into the bed to support his body
2. Stand at the side of the bed with feet shoulder width apart, knees bent, back in a neutral (arched naturally, not stiff) position
3. Help lift the person's shoulders by placing your hands and forearms under the pillow and his shoulder blades
4. Keep knees bent, back in neutral position and lock your arms to assist the lift
5. Adjust the pillow

Helping a Person Sit Up

It is common for the elderly or a person with a disability to have trouble turning over or getting in and out of bed.

These tips may help:

1. Tell the person what you are going to do
2. Bend the person's knees
3. Roll him on his side so that he is facing you
4. Reach one arm under his shoulder blades
5. Place the other arm behind his knees
6. Position your feet shoulder width apart. Keep your centre of gravity close to the bed and the person
7. Keep your back in a neutral position
8. Count "1-2-3" and shift your weight to your back leg
9. Shift the person's legs over the edge of the bed while pulling his shoulders to a sitting position
10. Remain in front of him until he is in a stable position

HELP GETTING IN AND OUT OF BED

It is common for the elderly or a person with a disability to have trouble turning over or getting in and out of bed.

These tips may help:

1. If the person is having trouble getting in and out of bed or turning over in bed, talk to your doctor. Medication may have to be adjusted
2. A satin sheet or piece of satin material placed across the middle of the bed and tucked under the mattress can make it easier for the person to turn over
3. Heavy blankets can make it more difficult for the person to turn over
4. Make sure the path from the bed to the bathroom is well-lit. Use a night light
5. Keep the bedroom floor clear of things that could cause a person to trip or fall. Don't leave shoes, books or magazines on the floor

Getting Up from Bed and Lying Down

To help the person in your care get up from bed, get him to follow these steps:

1. Bend knees and place feet flat on bed
2. Turn to side. Reach arm across the body to start rolling
3. Move feet off the edge of bed
4. Use arms to push self into sitting position. If there is a half-side rail or chair fastened to the side of the bed, use it

To help the person in your care get up from bed, get him to follow these steps:

1. Sit on the edge of bed
2. Lift legs into bed one at a time
3. Lie down with head on pillow
4. Slide legs into centre of bed. Move one leg at a time

HELP GETTING IN AND OUT OF BED

Helping Someone Get Into Bed

1. Get the person to approach the bed as though he is going to sit in a chair. He should feel the mattress behind both legs
2. Get the person to slowly lower himself to a seated position on the bed, using his arms to control the movement
3. Tell him to lean on his forearm while his body leans down to the side
4. As the body goes down, the legs will move up (a little like a seesaw)
5. Do not let the person place his knees up on the mattress first. He should not "crawl" into bed

Helping Someone Get Out of Bed

1. Get the person to bend his knees and keep his feet flat on the bed
2. Get him to roll onto his side towards the edge of the bed by letting his knees fall to that side. Tell him to turn his head and look in the direction he is rolling towards
3. Help him to lower his feet from the bed and push into a sitting position using his arms
4. A straight-back chair fixed at the side of the bed or a bed rail can help the person roll more easily

TRANSFERS

Transferring a person in and out of bed is an important caregiver activity. It can be done fairly easily if you follow these instructions. Use the same procedure for all transfers so that there is a routine.

Helping a Person Stand

Help only as needed but guard the person from falling.

1. Get the person to sit on the edge of the chair or bed. Let him rest a while if he feels dizzy
2. Tell him to push away from the bed or chair armrests with his hands
3. Position your knee between his knees
4. Face him and support the weak knee against one or both of your knees as needed
5. Place your arms around the person's waist or use a transfer belt
6. Keep your back in a neutral position
7. Count "1-2-3" and tell the person to stand up while pulling him towards you and pushing your knees into his knee if needed
8. Once he is upright, get him to keep his knee straight in a locked position
9. Support and help him to stay balanced

NOTE: If during a transfer you start to lose your hold of the person, do not try to hold him up. Instead, lower him gently to the floor.

Helping a Person Sit

1. Reverse the steps described in "Helping a Person Stand" above
2. Get the person to feel for the chair or bed with the back of his legs
3. Get the person to reach back with both hands to the bed or chair armrests and sit down slowly

TRANSFERS

Transferring from Bed to Wheelchair with a Transfer Belt

Step 1

- Place the wheelchair at a 45° angle to the bed so the person will be transferring to his stronger side
- **Lock** the wheels of the chair and the bed
- Tell the person what you are going to do



Step 2

- Put on his shoes while he is still lying down if he is weak or unstable
- Bring him to a sitting position while his legs are over the edge of the bed



Step 3

- Let him rest a while if he feels dizzy
- Use a **transfer belt** if the person needs a lot of support





Step 4

- Help him to a standing position

Step 5

- Get him to reach for the arms of the chair and pivot your body slowly. A very fast pivot may scare the person, or cause you to lose knee control. You may fall with the care recipient
- Support him with your arms and knees as needed
- Adjust him comfortably in the chair



Transferring from Wheelchair to Bed

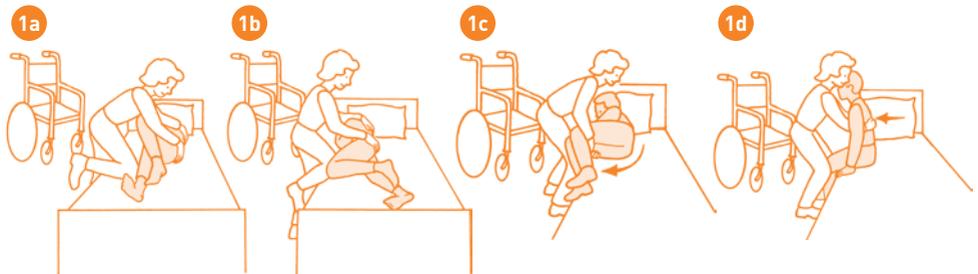
1. Reverse the process described in “Transferring from Bed to Wheelchair with a Transfer Belt”
2. Place the chair at a 45° angle to the bed so the person is on his stronger side. Lock the wheels
3. Get into a position to provide a good base of support; use good body mechanics
4. Have the person stand, reach for the bed and pivot
5. Support and guide him as needed
6. Adjust the position of the person in bed with pillows

TRANSFERS

Transferring from Bed to Wheelchair without a Transfer Belt

Step 1

- Place the wheelchair at a 45° angle to the bed so that the person will be transferring to his stronger side
- **Lock** the wheels of the chair and bed, or use a wheel block
- Tell the person what you are going to do
- Bring him to a sitting position with his legs over the edge of the bed following steps a, b, c, and d as shown in the illustration
- Let him rest a moment if he feels dizzy
- Put his shoes on



- Place the wheelchair at a 45° angle to the bed so that the person will be transferring to his stronger side
- Lock the wheels of the chair (or use a wheel block) and the wheels of the bed
- Tell the person what you are going to do
- Bring him to a sitting position with his legs over the edge of the bed following steps a, b, c, and d

Step 2

- Put your arms around his chest and hold your hands together behind his back
- Support the leg that is farther from the wheelchair between your legs



Step 3

- Lean back, shift your leg and lift
- Pivot your body towards the chair



Step 4

- Bend your knees and let him bend toward you
- Lower the person into the wheelchair
- Adjust his position so that he is seated comfortably

NOTE: As the person becomes stronger, you can provide less assistance. However, use the same body positioning to support his weaker side.



TRANSFERS

Transferring from Wheelchair to Bed with a Transfer Board

1. Try to adjust the bed and the chair to the same height if possible
2. Place the wheelchair at a 45° angle to the bed so that the person will be transferring to his stronger side
3. Lock the wheels of the chair and bed, or use a wheel block
4. Tell the person what you are going to do
5. Remove the armrest nearest the bed
6. Remove his feet from the footrests and swing the footrests out of the way
7. Have the person lift his hip and place the board under the hip with the other end of the board on the bed
8. **MAKE SURE THE PERSON DOESN'T PUT HIS FINGERS UNDER THE BOARD**
9. Ask him to put his hands on the board with hands close to his sides
10. Ask him to lean slightly forward and make a series of small pushes off the board by straightening his elbows, and inching along the board towards the bed
11. When he is on the bed, ask him to lean over onto his elbow and pull the transfer board out from under his bottom
12. Adjust him comfortably in the bed



Transferring from a Wheelchair to a Car

Step 1

- Open the passenger door as far out as possible
- Move the side of the wheelchair as close to the car seat as possible
- Lock the chair's wheels
- Move both footrests out of the way

Step 2

- Position yourself so that you are facing the person
- Tell him what you are going to do
- Bend your knees and hips and lower yourself to his level
- Hold on to the transfer belt around his waist to help him stand as you straighten your hips and knees
- If his legs are weak, brace his knees with your knees



Step 3

- While he is standing, turn him so that he can slowly sit down on the car seat. Make sure that he does not hit his head



Step 4

- Lift his legs into the car by placing your hands under his knees
- Move him to face the front
- Put on his seat belt
- Close the door carefully



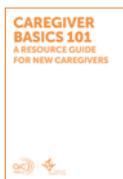
ADDITIONAL RESOURCES

These additional resources contain information that will help caregivers find caregiver support services.

Publications

Caregiver Basics 101– A Resource Guide for New Caregivers

A collaborative effort between Agency for Integrated Care (AIC) and Centre for Enabled Living (CEL), this guide contains information to help caregivers get started in their caregiving journey, including resources on caregiver training providers, respite care services and caregiver support services.



One-Stop Information and Referral Services

This brochure provides information to help both elderly and caregivers find and apply for the schemes and referral services offered by the Agency for Integrated Care (AIC) and Centre for Enabled Living (CEL).



Choosing Intermediate and Long-Term Care (ILTC) Services

This brochure lists all the available services and factors to consider when deciding your best-suited option.



NEXTSTEP

Launched in January 2011, this quarterly community newsletter has a current circulation of 10,000 copies, and provides information on care options and ILTC-related resources, such as caregiving tips and product guides.



Social and Healthcare Service Directory 2011/2012

A collaborative effort between the Agency for Integrated Care (AIC) and Centre for Enabled Living (CEL), the Social and Healthcare Service Directory 2011/2012 is designed to provide you with easy access to social and health-related information and services.



ADDITIONAL RESOURCES

Online Resources

Singapore Silver Pages (SSP)

This one-stop web portal contains information on how one should assess one's care needs, search for a service provider, and find a suitable healthcare product. Visit <http://silverpages.sg> for more information.



Care In Mind

Suitable for caregivers who want to learn more about mental wellness, Care In Mind provides the relevant information and resources you need to make empowered decisions for yourself or your loved one. Visit <http://careinmind.aic.sg> for more information.



Tip



Scan this QR code to find out how you can get additional resources or visit <http://silverpages.sg/downloads>



Agency for Integrated Care (AIC)

Tel: 6603 6800

Website: www.aic.sg

Email: enquiries@aic.sg



Centre for Enabled Living (CEL)

Tel: 1800 8585 885

Website: www.cel.sg

Email: information@cel.sg